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Women in Botany Project

June McCaskill

HERBARIUM SCIENTIST
UNIVERSITY OF CALIFORNIA, DAVIS

With an Introduction by
John Tucker

An Interview Conducted by
Ann Lage
in 1988

Since 1954 the Regional Oral History Office has been interviewing leading participants in or well-placed witnesses to major events in the development of Northern California, the West, and the Nation. Oral history is a modern research technique involving an interviewee and an informed interviewer in spontaneous conversation. The taped record is transcribed, lightly edited for continuity and clarity, and reviewed by the interviewee. The resulting manuscript is typed in final form, indexed, bound with photographs and illustrative materials, and placed in The Bancroft Library at the University of California, Berkeley, and other research collections for scholarly use. Because it is primary material, oral history is not intended to present the final, verified, or complete narrative of events. It is a spoken account, offered by the interviewee in response to questioning, and as such it is reflective, partisan, deeply involved, and irreplaceable.

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JUNE McCASKILL
1980

Photograph by Sonia Cook

Catalogue card

MCCASKILL, June (b. 1930)

Herbarium scientist

Herbarium Scientist, University of California, Davis, 1989, iv, 83pp.

McCaskill Gardens, family nursery in east Pasadena, California, 1930s-1940s: camellias, native iris, southern California horticulturists; studying botany with Professor Howard McMin, Mills College, 1949-1953; the herbarium at UC Davis, 1953-1988: management, curatorial functions, public service in plant identification, weed control, crime cases; Professor Katherine Esau; Friends of the Davis Arboretum: founding, 1971, travel program; women in botany. Appended article on Vern and Jack McCaskill.

Introduction by John Tucker, Professor of Botany Emeritus, University of California, Davis

Interviewed 1988 by Ann Lage

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INTRODUCTION

I first met June McCaskill in February of 1953, in her first year after graduating from Mills College. The occasion was the annual dinner of the California Botanical Society in Berkeley, and at the time I was on the lookout for a prospective assistant in the Botany Department herbarium at the University of California, Davis. Two faculty members at Mills (Professor Howard McMinn and Dr. Lucile Mason) had recommended her very highly, and my personal impression, after a lengthy chat that evening, was equally favorable. She was hired in due course; her appointment began that summer. Now, thirty-six years later, June is still on the job, still going strong, and a professional of considerable eminence.

From the outset, she adapted to the position completely, taking on without complaint any task connected with the job--doing what had to be done. In the early years her routine duties consisted mainly of making plant identifications, overseeing the mounting of specimens, fumigating and filing specimens, and on occasion processing loans to other institutions.

Her most important single function--identifying plants as a public service for farmers, farm advisors, and the general public--usually involved fresh or pressed and dried specimens. On occasion, however, the "specimens" she received could present special challenges: the envelope containing a specimen so thoroughly fragmented and pulverized as to be recognizable only as plant material, and not much else; or the sample of water weeds in a plastic bag, half-decomposed and reeking to high heaven; or a portion of a bale of hay suspected of containing plants toxic to a farmer's livestock.

Over the years, June has gained extensive knowledge of California plants, especially the weed flora, and the relevant botanical literature. This, coupled with her meticulously careful and thorough analyses, has led to an enviable reputation for accuracy and dependability in her plant identifications. Thus, her assistance in such matters has come to be highly valued throughout the state by farm advisors, veterinarians, doctors at poison control centers and other professionals.

Beyond the routine duties of a herbarium worker, June's activities in the Botany Department, and on the campus in general, have multiplied and become far more varied with the passing years. With students, faculty members, and others, she has always been extremely helpful in assisting with problems in her areas of expertise. This has included editorial assistance on manuscripts, and on occasion has led to co-authorship of publications.

June's function as an instructor on an informal basis--although not widely appreciated in the department--has become increasingly important in recent years. Part-time student assistants, working on an hourly basis, have always been the main source of additional help in the herbarium. June has been very good in training them and supervising their efforts. This has led to her developing an informal, but comprehensive, course in herbarium practice and procedure. Students interested in gaining such hands-on training work

with her as interns for university credit. June is remarkably helpful, patient, and generous of her time, and takes a personal interest in these kids. Many lasting friendships have developed from such associations.

Although quiet and unassuming, but certainly no shrinking violet, June has always been willing to try new activities as a volunteer. Early on, she began conducting tours of the herbarium (on request) for groups of visiting students, usually classes from elementary or middle schools. Other activities have included regular participation in Picnic Day projects, giving talks on "Weed Day" (an annual gathering of Cooperative Extension specialists in weed control), and numerous volunteer activities with the Friends of the Davis Arboretum. In addition to serving as perennial membership chairman of the Friends, she has organized and conducted a number of tours in recent years. The most ambitious of these (to Hawaii, and to the mid-Atlantic states on the East Coast) have been well attended, and comments from participants have been uniformly positive--often enthusiastic. Several have remarked on her ability to improvise in unexpected circumstances, or to coolly work out solutions to occasional mixups.

Unquestionably, these tours have honed her skills in dealing with people of varied background and personality.

This adaptability on June's part, which I have long noted, had its supreme test last year. In August of 1988, the A.I.B.S. (American Institute of Biological Sciences, an umbrella group for most biological societies in the United States) held its annual week-long meeting on the Davis campus for the first time. With hundreds of botanists swarming over the campus, the herbarium became the focal point for the plant taxonomists in attendance. Every day the herbarium was jammed with people visiting, chatting, and even trying to use the library and herbarium. June played her role to the hilt as general manager--greeting visitors, introducing people, taking phone calls, recording messages, and generally making herself useful. On the busiest days, the near-chaotic conditions would have driven many people to distraction. Not June! I had never before seen her in action under such conditions, and her cheerful, helpful attitude, friendliness, and utter unflappability were a source of amazement to me!

Activities and experiences such as those I've described have surely enhanced her growth, both personally and professionally, whether she has viewed them in this light or not. Although she has reached an age where retirement is not far off, I have the distinct impression that, far from looking forward to retirement, June is looking for the next opportunity for adventure--professional job-related or otherwise.

John Tucker
Professor Emeritus

October 6, 1989
University of California
Davis, CA 95616

Interview History

The Women in Botany project was undertaken by the Regional Oral History Office in 1985 to present in their own words the stories of a remarkable group of women scientists. Volume I of the series included the interviews of Annetta Carter, Mary DeDecker, and Elizabeth McClintock describing the highlights of their careers as herbarium curators, collectors of native and ornamental plants, and conservationists of flora and habitat.

Shortly after completion of volume I in 1987, Annetta Carter, who has been a valued advisor to the project from the beginning, suggested as our next memoirist June McCaskill, manager of the University of California, Davis, herbarium for thirty-five years. Terence Murphy, head of the Department of Botany at Davis, enthusiastically supported this suggestion and helped ROHO raise funds to document June's work at the herbarium and her extensive public service activities.

June came to Berkeley for three interviews in January, April, and August 1988. Despite her innate modesty and a certain discomfort in speaking about herself and her many accomplishments, what has emerged from the interview sessions is a picture of a dedicated woman botanist whose extensive knowledge and unstinting service have made her an invaluable asset to the UC Davis herbarium.

The oral history documents her early years helping out in her family's nursery, McCaskill Gardens, in Pasadena, California, where she was immersed in a life of plants and plant people. (An article about her father and brother, Vern and Jack McCaskill, is included in the appendix to this volume.) She next describes her education at Mills College, her work there with botany professor Howard McMin, and her appointment as herbarium assistant at UC Davis in 1953.

Her description of her career in Davis as "chief cook and bottle washer" in the herbarium gives a picture of her varied curatorial functions, from maintaining collections to training student assistants, and illustrates her public service role, from weed control to poison control to crime control. The interview concludes with a look at June's contributions to the University Research Expeditions Program and to the Friend of the Davis Arboretum, where she has organized and led arboretum trips far and wide.

June edited the interview transcripts with her characteristic care but made no substantive changes. The tapes of the interview are available in The Bancroft Library.

Ann Lage
Interviewer-Editor

October 31, 1989
Regional Oral History Office
486 The Bancroft Library
University of California, Berkeley

BIOGRAPHICAL INFORMATION

(Please write clearly. Use black ink.)

Your full name Billie June McCaskill
Date of birth 2 June 1930 Birthplace Altadena, Calif.
Father's full name Vern Otho McCaskill
Occupation Nurseryman Birthplace Summersville, Missouri
Mother's full name Billie Lee Nowlin McCaskill
Occupation Housewife Birthplace Dallas, Texas
Your spouse _____
Your children _____
Where did you grow up? Pasadena, California
Present community Davis, California
Education B.A., Mills College, 1951
Occupation(s) Principal Museum Scientist, U.C. Davis
Areas of expertise Identification and geographic
distribution of weeds. Toxic plants.
Allergenic plants.
Other interests or activities Art, gardening, music,
orientalia, travelling.
Organizations in which you are active California Botanical Society
Friends of the Davis Arboretum

I FAMILY ROOTS IN BOTANICAL PURSUITS

[Interview 1: January 25, 1988]##

Origins of McCaskill Gardens, 1930s

Lage: June, we're going to start with your background and, particularly, elements in your background that sort of pointed you in the direction of a career in botany. I know, for starters, that your family was in the nursery business. So should we start with your parents, something about your parents?

McCaskill: That would be fine. My dad and mother [Vern Otho McCaskill and Billie Lee Nowlin McCaskill] met in Missouri and eloped to California when they were very young. People said it would never last, but it did. They were married for sixty-six years, and that was ended by my mother's death.

But at any rate, off they came to California on a honeymoon and to visit relatives that had preceded them out here. They fell in love with it but had to go home to Missouri. After three hard winters in Missouri, and after saving up some money, enough to get a car, they came again to stay.

Lage: About when was this?

McCaskill: That was in 1924. They brought my sister with them; she had been born in Missouri in '21.

Lage: That was an interesting time in southern California, I'm sure. A lot of people were coming out from the Midwest in the twenties.

##This symbol indicates that a tape or a segment of a tape has begun or ended. For a guide to the tapes see page 73.

McCaskill: Oh yes, yes. The land of milk and honey is the phrase I think of. It was beautiful. I learned that firsthand from the folks and from reading. From the mountains to the sea there were just fields of California poppies and native oaks and not much civilization cluttering up the landscape.

Lage: No smog.

McCaskill: No smog whatsoever.

Lage: Where did they settle?

McCaskill: They settled in Pasadena. Dad had acquired a love of plants from his mother. And although he had no experience in nursery work, he was able to get a job at Coolidge Rare Plant Gardens, which was very well known for years. It is gone now, and there's a church on the property. But Dad worked there in the twenties and so did my mother. It seems that my mother excelled in making cuttings. Also she was a very charming woman, probably the most charming woman I have ever known. She just delighted them all. Dad said the Coolidges treated them more as their own children than employees.

Dad's job was to inventory the plants for Mr. Coolidge. His nursery was called a rare plant garden so he had some of everything, but he had only one camellia, Dad noticed, and it was a beautiful 'Pink Perfection.' That got him hooked on the idea of raising camellias. And he told me that on Sundays sometimes he and Mom would drive around town and see camellia bushes and occasionally work up their nerve to ask if they could take a cutting or two and propagate it for themselves.

Now the years are ticking by, and they have built a house in 1932. My family is still living there, my dad and brother at this point.

Lage: At the house they built in 1932?

McCaskill: Yes, in east Pasadena. Just as far east as you can get. It's on the street that separates Pasadena and Arcadia. And that's where, in the early thirties, the folks built their nursery on the property beside our home.

Dad had continued on at Coolidges' part time while my mother was out at the new place, so they were trying to do two things at once. Finally, he was able to break away from Coolidge's and open the gates of a very small nursery onto which he added later.

Lage: Right in the middle of the depression?

McCaskill: Yes, yes! He said the house cost six thousand dollars to build. It's a very lovely two story English semi-Tudor style. They have, I guess, nearly an acre. So they worked extremely hard. I admire them tremendously for all they've done.

Lage: You grew up surrounded by this nursery?

McCaskill: Yes. I have fun telling people that I was brought up in a nursery. It's true. Not the traditional one where you have little children, but a plant nursery stocked with camellias and azaleas primarily.

Lage: It was a specialty nursery.

McCaskill: Yes, it was, because Dad had discovered camellias and wanted to promote their popularity. I guess you don't see too many of those in Missouri except, of course, in greenhouses.

One thing that's rather interesting is that camellias sold like hotcakes in the forties. I got to thinking about popularity trends in plants. In the sixties the houseplant was the number one item. Sometimes it's orchids. Many things do come and go in cycles.

Lage: I always think of a camellia as being kind of a standard now.

McCaskill: They are now, yes. I have read a bit of history on that. They had been popular in southern California perhaps before the turn of the century, but then they had faded away, somehow. They started coming on strong again in the thirties and have remained a popular item.

Lage: What was the nursery's name?

McCaskill: They named it McCaskill Gardens. [See Appendix B]

Growing Up in a Nursery--A Family Enterprise

Lage: What was it like to grow up in the nursery surrounded by those plants? Did you actually work alongside your parents?

McCaskill: Yes, it was a way of life for us. The lathhouse was beside the house, out the back door and through the back yard. There was a little bell hanging in the aisle for the customer to ring for assistance--it's still there. That bell became a familiar part of our lives, often interrupting lunch. After growing up with the plant business, it was natural for us to follow in the folks' footsteps.

Lage: You had brothers and sisters?

McCaskill: Yes, I had a sister, my older sister who was born and brought with our parents from the Midwest. And then brother Jack and I were born in Pasadena, Jack in '29, and I the following year.

Actually some of my very happiest memories are of gardening on weekends with the folks. The whole family rallied and got out there and got the landscaping around our home shipshape. They were many pleasurable hours.

Then when Jack and I got a little older and a little more enterprising, we went to work for my dad for thirty-five cents an hour. I think we worked up to that. It was a fair wage for kids at that period of time. And, of course, the fringe benefits were immeasurable--free lunch, and housing and all that sort of thing. We had a great time.

I, for the most part, transplanted azaleas from the pots they were in to larger pots and did some weeding and things of that nature. Also, my brother and I had our own vegetable garden and I think about that with smiles. He and I were talking about it only yesterday and remembering the hundreds of radishes we couldn't even give away!

Lage: You said your brother also went on to a career having to do with plants. What did he go on to do?

McCaskill: He worked for my dad for some years. That was interrupted by service in the U.S. Navy. And then he came back and for a period of time worked at the Huntington Botanical Gardens in San Marino, just south of Pasadena. Next he took a job at the Los Angeles State and County Arboretum in Arcadia. It's called the Arcadia Arboretum but the funding is from two sources; that's why it has that long official name. And Jack is working there still in the plant records office.

That's an interesting thing too. Now that I think about it, Jack and I played on the Lucky Baldwin Estate, which is now where the arboretum is located. Jack continues to pursue his interest in the history of Baldwin and his times.

Lage: Is the McCaskill nursery still in operation?

McCaskill: Yes, yes. Dad, at age eighty-six, still opens the gates every day except Christmas Day and continues to wait on customers.

Lage: My goodness, that's a long history there.

McCaskill: And that's, I'm sure, what keeps him going.

Lage: And it sounds as if your mother was very actively involved.

McCaskill: Oh yes, tremendously! She had learned the plant business at the Coolidges' and then helped Dad establish their own nursery. Yes, she was an enormous help to him. They worked together side by side, selling to customers. She was especially good at that, and they all loved her. I'm sure many people came just to see her.

Lage: She sounds wonderful!

McCaskill: Oh, she was! Just a marvel! And so they continued to work together their whole lives. Well, as the years progressed and her illnesses came--she had strokes and was eventually taken by a major one, but she continued to help as long as she could. As a hobby she got involved in flower arranging. So Dad started carrying a line of materials good for her flower arranging friends--such as ornamental grasses and some of the native iris. That's part of the native iris story, too, having to do with flower arranging.

Lage: Tell me about the native iris story.

McCaskill: Well, Dad, as you know well by now, was into camellia hybridizing and was busy with that. Meanwhile, my brother noticed that Mother had around the garden a few plants of native iris around the garden that some friends had given her. Friends were always bringing her slips and rhizomes and whatnot. Mother was using these in her flower arranging classes. And my sister was in the class also and had a few native iris in her garden, and Jack was taken with those.

He liked them a good deal; he could see the graceful beauty of them. So he started collecting seeds and rhizomes of the native iris up and down the coast from about Mendocino County down to south of Monterey County. He brought them home, and Dad, being so busy with his camellia projects--incidentally, he wouldn't want me to brag, but he's introduced over two hundred cultivars into the nursery trade. Well, when Jack discovered iris, Father really was not terribly impressed at first. But he was happy to help Jack out, and they raised the seeds and tried to keep the plants going. They raised the seeds in cans so that they could sell the ones they didn't want to keep for stock.

Well, they weren't very good. So a friend and a horticulturalist named Peg Dabagh saw that they wanted to get going on the native iris and talked to Dr. Lee Lenz at Rancho Santa Ana Botanic Garden. Dr. Lenz had already given some of his best selections to other commercial people who just sold them and didn't create stock from which you could get more plants. And Dr. Lenz had become cautious about this, but Peg

McCaskill: convinced him that the McCaskills were serious plant lovers, so he invited my brother out to pick seeds from some of his best stock plants. From there they went on making crosses back and forth and developed some of their own cultivars, many of them very beautiful.

Lage: What did you call them?

McCaskill: Cultivars. It's a word that we should really use instead of varieties, where man is involved. In the wild you can speak of genus, species, and varieties, but where man has intervened the name is cultivar. Earlier I mentioned a camellia, 'Pink Perfection'; it would be written in single quotes.

Lage: So a cultivar is just a variety that's man-bred or developed?

McCaskill: Yes.

Lage: I see there was cooperation between the professional horticulturalists and the nurserymen, or at least in this instance.

McCaskill: Yes, there was. That reminds me that we went with Dad to the Huntington Gardens often. He donated hundreds of camellia plants, and one of their big sections that remains at the garden today is the camellia garden. Many of the plants that he donated are huge trees by now.

Dad, and Mom when she could get away, took us to many wonderful gardens. I have memories of, of course, the Huntington and also private gardens. We were so lucky to be in an area where public botanic gardens were accessible. And then the private garden that I recall now is that of the Gamble family of the Procter and Gamble soap people. Cecil Gamble and his wife Louise would come to the garden in a chauffeured car and select plants. Then Mr. Gamble would ask Dad, "Would you come and plant them for me, or show my gardener where they should be located so they will grow well?" The Gamble house is wonderful. It was built in the California bungalow style by the famed Greene and Greene architects.

We're getting side tracked.

Lage: Well, yes, but I think this is important because it certainly shows where you developed your interests.

McCaskill: Yes, it was just part of our lives.

Lage: Did your father do a lot of mail order on his camellias?

McCaskill: No, he didn't. Dad was not a--I don't want to say not a businessman, but let's face it, he was a plant lover. His life was out in that nursery in the soil. He wasn't into trying to develop the nursery and hire people and go as the Armstrongs, Rosedales, and Deigaards did. They have wonderful nurseries and multi-million dollar operations, but Dad scarcely hired anyone. I remember that when business was extra good in the forties, he had to hire a young fellow to help. His name was Bob Unger, and Bob became part of the family. He was so good to us kids. He would take us out to the Lucky Baldwin property and build little boats for us to sail on the lake. That's the lake in the T.V. program "Fantasy Island," incidentally. Many movies were filmed out there, both before and after it became the Arcadia Arboretum. It was only a mile or so from our house, so we'd just walk or bike out there to play and explore around.

Pasadena Schooling and On to Mills

Lage: Sounds very idyllic. Tell me about your school in Pasadena. You mentioned it was an unusual system.

McCaskill: Yes. I should have done my homework on this one. It was an unusual school system called the "six-four-four plan." I started at Willard Grammar School. One day someone came in and said, "Well, we're going to have some of you go over to Grant Elementary School." It turns out it was a progressive school; that was an interesting story in itself. It was a progressive school, not progressive by today's standards, because today kids can do very many things that seemed a little avant garde at the time, I guess. We learned about opera in first grade, and we'd go to a music class and have it played and explained to us. I remember the Ring, Wagner's Ring. We would chase butterflies and make collections. We had our own little radio station in the sixth grade. We hammered pewter plates and built a covered wagon and adobe hogan for our social studies.

Lage: It does sound something like some of the experiments in the sixties.

McCaskill: We got to write our own report cards, too. I remember the principal was Grace Ball. That was unusual, I suppose, to have a woman principal. And, anyway, those years were a great deal of fun. I went to Grant through the sixth grade, and then I went to Wilson Junior High School for four years.

Lage: A four-year junior high?

McCaskill: Yes, they called it Woodrow Wilson Junior High; after you graduated there from the tenth grade, the next step was to go to Pasadena City College, which was four years: eleven, twelve, thirteen, fourteen. So I went there for year eleven and took botany from a woman named Margaret Stason. She influenced my life. Prior to that I thought I was majoring in English with a wonderful woman named Miss Dickson, but I think the both of us could see my talent wasn't great. And I was sliding back into plants. I was learning about them for the first time, learning about their internal structure and functions, so I think I owe a lot to Miss Stason for furthering my interest.

Lage: Did you have a close relationship with her, or just teacher-student?

McCaskill: No, I seldom saw her out of the classroom setting. It seems to me she gave both the lectures and the labs. I had a friend there taking the class with me. She and her sister and I had long been friends growing up in the Pasadena area and attending church camp together. The two of them went off to Mills for college.

Oh, back when my brother and I were growing the veggie garden and all that, my older sister had gone off to Stanford.

Lage: And what was her name?

McCaskill: Bettylee. Her Stanford sorority sisters called her Letty B. instead of Bettylee. Now she's Letty to everyone.

At any rate, I was thinking of trying for Stanford, and then my friends had gone to Mills, and Miss Stason had shown me books by a Professor Howard McMin, who was at Mills.

Lage: So there was active discussion about career plans or majors at the city college level?

McCaskill: Yes, my counselor was helpful and enthusiastic about biology. As was, of course, the head of the Biology Department, at that time a woman named Emma B. Mundy.

Lage: And you had a sense that you wanted to get into botany?

McCaskill: Yes, I felt that I was headed that way. To be honest with you, I wasn't as thinking as most people that age are today, I don't believe. I was going to college a lot because my brother and sister had, and that was the next step in life.

Lage: It was expected, I'm sure. Was there any thought of coming back and working in the nursery? Did your parents encourage that?

McCaskill: No, no! They were wonderful. They didn't push us into anything.

One other thing. This hardly fits in, but for instance, marriage. My brother and I never married. We did some dating, but. . . . My sister did marry and, in fact, had two good wonderful marriages. Her first husband died too early of cancer. But now she's happily remarried to Earle Sample, and it's one of the greatest things that's happened to our family. At any rate, I guess we were saying that my parents didn't try to overdirect us. They made suggestions, but it was up to us. No, I had no thoughts of going back to the nursery. I did work a summer at Caltech, and we'll talk about that later, perhaps.

So off I went to Mills in nineteen forty-nine, fall of forty-nine. I was there my sophomore, junior, senior years, and then I stayed on two more years to work with Professor McMinn and Dr. Lucile Mason.

Lage: She was connected with Mills, too?

McCaskill: Yes, she was.

Lage: Were those two years graduate years for you?

McCaskill: No, I was not enrolled for a graduate degree. Professor McMinn had asked me to stay on and help him. I was his girl Friday, to a degree. I helped with the herbarium and the greenhouses; I helped Mrs. Mason teach the nurses--there was a program between Mills and the Merritt College nursing program. So nurses came over to Mills, and I would help Lucile Mason in teaching bacteriology and biology. I helped set up the labs. I remember making a lot of media in petri plates and transferring cultures, things of that nature.

Meanwhile, I'm doing many things for Professor McMinn. And while I was there, I took classes. Then Professor McMinn one evening took me to a California Botanical Society meeting. I guess I actually went to several of those meetings with him. They were held at that time in the College Women's Club in Berkeley.

One time he introduced me to Dr. John Tucker, who was to then become my boss for thirty-some years at UC Davis.

Southern California Horticulturists: Charlotte Hoak,
Kate Sessions, Jack Hahn

Lage: Before we talk more about Mills and Professor McMinn, tell me about people that you met through your family nursery who have some standing in the botanical and horticultural worlds.

McCaskill: Yes. I was thinking of starting with the women. It's interesting how many women there were at the time. They were actually ahead of the times. One that comes to mind is Charlee Hoak, and, of course, we remember funny things, so I'll have to tell you a story.

Charlotte was a well respected plants woman who knew her business. She wrote articles for garden magazines and for newspapers. She would come to our nursery quite often. The funny story is that one day she was examining the camellias and chatting with my dad as she walked up and down the driveway. As she was looking at them, something came loose--I want to say underpinnings because that word tickles me--and, without batting an eye, she took her walking stick, flicked them up, put them into the bag she had over her arm and went right on with the conversation. My dad said she didn't even miss a beat, didn't miss a word in the conversation.

Lage: Was she an imposing woman?

McCaskill: She was to my small eyes. She was determined; she spoke positively. There was not too much arguing with her, I wouldn't imagine. Oh, and incidentally, she's the one with whom my brother travelled up the north coast, to Mendocino County; she had been born and raised up there.

Charlotte, in her later years, turned to us more and more. My mother, who was so kind and patient with everyone, talked to Charlotte almost daily. It got to be a bit much, but my mother didn't have the heart, really, to discourage her.

Lage: Was Charlotte's main role as a writer?

McCaskill: Yes, a writer and lecturer, I would say.

Lage: Was she based in California?

McCaskill: She lived, I think it was, in south Pasadena.

Lage: Did she write for California publications?

McCaskill: Yes, for California publications. It was a woman named Elvenia Slosson who saw to it that garden clubs of the state united together under the title of California Gardens, Inc. California Gardens then published a magazine called Golden Gardens, and Miss Hoak was its first editor.

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Lage: Okay. Did you know Elvenia Slosson?

McCaskill: No, I didn't. Another well-known gal was Kate Sessions. Miss Sessions died round about 1940, but she would come into the nursery in the thirties. She was actually best known for landscaping Balboa Park, and was a writer and a lecturer, also. I believe she spent most of her life in San Diego. You can still see evidence of her life there--beautiful old trees all over the city and in Balboa Park, most especially.

Lage: So this is quite an accomplishment, I would think, as a woman.

McCaskill: Yes, it was! She had a nursery, now that I come to think of it. She owned a nursery on her own--that was quite an undertaking. At any rate, Dad reminisces about her coming into the nursery with her long skirts. She always wore flowing long skirts, and he said she would sweep the aisles as she went down through our nursery selecting her camellias. Dad also recalls that she would never let my mother wait on her. Though a woman pioneer in the field, she couldn't quite trust the competency of other females in the business.

Lage: That's so ironic. It seems as if you had people coming from all over to get camellias.

McCaskill: Yes, we did. I think--as life goes on--we remember the happy things more and more, thank goodness. I remember Jack Hahn. He was a landscape architect of note. His home up in Sierra Madre was small, but his small garden was just a jewel. We'd go up there very often. I remember my mother in particular would like to go there to see what wonderful things he'd done around pools, in hanging baskets, and what not. Then he would come down to our nursery a lot, and the fun thing about him was his wooden leg. In those days they were wooden, and there were holes in them. He would delight in pulling his pants legs up and show us kids what he had stuck around in some of these holes. He had, you know, diamond rings and funny things he would pull out to amuse us with.

And then he went on to landscape the UC Irvine campus. He's dead now, too. All these people are gone.

Lage: Any other people you want to mention that you knew from the nursery?

McCaskill: I remember movie stars--the only names I can come up with today are Marie Dressler and Minna Gombel. Miss Gombel was in The Hunchback of Notre Dame. They would come out with their chauffeurs and gardeners to select plants for their estates. So that was fun.

The Pasadena Environment

Lage: I always think of Pasadena as being a wealthy community.

McCaskill: Yes, it was. Definitely.

Lage: Was that the kind of clientele you had, or was it a cross section?

McCaskill: Yes, well, we had a cross section, definitely a cross section. Pasadena was blessed with wonderful weather, hence beautiful flowers. It was easy to raise them there. People from all walks of life came to see them.

Lage: Any problem with the smog as the years went on? Did your father have problems?

McCaskill: Yes, but, I think, more than the smog, it was the water. It was a water problem that Pasadena had, and not Arcadia. I remember it had to do with the Colorado River water.

Lage: The quality of the water?

McCaskill: Yes. There were unsuitable minerals in it, and I remember for some of my dad's choice things he would take them over to my sister's and her husband's garden in Arcadia and try to revive them with her water by leaving them there awhile. Their water was well water.

Lage: So he seemed to figure out what the problem was--he narrowed it down?

McCaskill: Yes. I think that the water was his biggest problem, and another was the camellia blight that affected the camellia petals. It was finally figured what the fungus was and then from there they could figure a control. It now can be sprayed with a fungicide.

Lage: Did he draw on peoples' expertise for some of these problems, like the blight? Would the university Cooperative Extension assist him at all?

McCaskill: No, I don't believe he contacted the university system, but one person he checked with a lot was Dr. James Bonner at Caltech. Bonner was a very well-known plant physiologist, and his hobby was camellias. He came to the meetings of the Camellia Society that we all attended so dad would share his problems with him and get his thoughts on them, I would say.

The Southern California Camellia Society

Lage: You mentioned the Camellia Society, but I think the story you told me about its founding didn't get on the tape, so why don't we talk about that now?

McCaskill: That would be the Southern California Camellia Society. It is still in existence, meeting at the Arcadia Arboretum. Dad remembers so well, he and Mom were on the back porch of our house one day, he had just opened the mail to find there was a meeting of the Camellia Society in the South, in the Deep South where they grow so beautifully, and where camellia societies abound. Another camellia person was there at the time, and my dad said, "Well, why couldn't we have a camellia society here?" Mr. Robert Long said, "Well, we could." So they phoned people they thought would be interested, all camellia enthusiasts. There were literally dozens of them in the Pasadena area and in Temple City, especially.

Lage: Dozens of other camellia nurseries?

McCaskill: Of camellia growers. They might have had general nurseries, but camellias were a big favorite. So they felt they could get an organization going and had an organizational meeting in Pasadena. Their first regular meeting was held in the main library of Pasadena on Walnut Street, in 1940. Jack and I went. I guess I was ten, Jack was eleven. We were regular attendees. We helped the folks take their cut blossoms to the meetings, and then we always assisted with their annual camellia shows, where they put in large displays. We would help them put in their exhibits, stand talking to people and helping with whatever needed doing.

Lage: It sounds like great preparation for your job at the herbarium.

II EDUCATION AND WORK AT MILLS COLLEGE, 1949-1953

Professor Howard McMinn: Lasting Contributions

Lage: We skimmed quickly, very quickly, over Mills College and your education there and experience. You had five years all together.

McCaskill: Yes.

Lage: Arriving in '49 at Mills?

McCaskill: Yes. And graduating in June of fifty-one.

Lage: What was Mills like during these postwar years?

McCaskill: Wonderful. I loved it. I would go there all over again. People say, "a girls' school?" Well, I know, I can understand, but we had Berkeley and Stanford nearby, and there were a lot of exchange activities. We didn't feel isolated. It was a beautiful campus. I wasn't totally aware of that at the time, but when I go back now I think, "Oh, my word!" I must have been half asleep when I was there in terms of realizing its physical beauty.

Professor McMinn and his wife, Helen, lived up in Faculty Village, as it was called, as did many of the professors, and they were so gracious, in that they invited us up to their home for afternoon teas or dinners.

Lage: Was this because you were a botany major? Was that your major?

McCaskill: I was a botany major, yes. And Professor McMinn would take us on field trips, also, around the campus and the hills surrounding the campus. We didn't often go on any farther afield than the Bay Area. Things were limited at that time in terms of transportation. We did manage one excursion to Yosemite, however. And I remember going on the beaches over in San Francisco out past Fleishhacker Zoo.

Lage: The Ocean Beach area?

McCaskill: Yes. He would show us the coastal strand plants; we'd collect some. His main interest, however, was native shrubs. He wrote a book on the native shrubs of California which I still use in the herbarium almost daily. He wrote another book on ornamental vines and shrubs of California, and a third titled Pacific Coast Trees. They were all written in the 1930s and 1940s, and I have them on my shelves in the herbarium right where my special books are that I use to identify plants that come in. And if anybody comes in and says, "I want a shrub identified," I can use his book along with what is currently the bible, by Philip Munz, A California Flora. I've used them side by side, and then you have to update the taxonomy or the names, of course. And if someone asks me, "Well, I'd like to learn how to use keys. This just looks like a bunch of gobbledegook to me; what am I going to do?", I'll often show them McMinn's keys. He had a way of simplifying them. You could get a long way to the answer in his keys because you could use them with ease; the language was not overdone.

Lage: So he knew how to get to the person who was not the expert.

McCaskill: Yes. He got to the layman as well as to the professional botanists.

Lage: He had quite a reputation as a professional.

McCaskill: Yes, he did, yes. I would say he was one of the foremost pioneers in introducing native plants into the California landscape. In the 1930s he was introducing Ceanothus, Arctostaphylos, or manzanita, and he did a good deal of hybridizing of the Diplacus, now lumped into Mimulus by some plant taxonomists, but either way, "bush monkey flowers." And there were gardens of his crosses and plant introductions. His native plants surrounded the Life Science Building at Mills, and much of that is still intact. They've had to add on wings and transplant things.

Lage: Is it a formal botanical garden?

McCaskill: I wouldn't say formal, but rather plantings in the area in and around the biological science buildings. When I was there the core of it was the McInnes Memorial Garden. Semi-formal maybe. There was a little greenhouse where he taught us propagation. He collected seeds and plants extensively in South Africa and brought them to his gardens at Mills and propagated them, and some of those have been introduced into the nursery trade. Many South African daisies, for example.

Lage: I interviewed a man named A. E. Wieslander.

McCaskill: Oh, I know his name.

Lage: He worked for the Forest Service doing surveys of California vegetation, but he also had a native plant garden which specialized in manzanita in Oakland.

McCaskill: Yes, now I recall the soil-vegetation surveys and mapping. Many herbarium specimens resulted from this survey work.

Lage: He talked about Howard McMinn.

McCaskill: McMinn published another book titled Ceanothus with the director of the Santa Barbara Botanic Garden at the time. He was well known; he's gone now, too. But McMinn wrote the half of the book on the taxonomy of the genus and Maunsell Van Rensselaer did more on the cultivation, the horticultural end.

Lage: Was there a close tie always between the botanical people and the horticulturalists? It sounds so at Mills.

McCaskill: Yes, there definitely was at Mills. McMinn hob-nobbed with many of the horticulturalists, and they came to him. He was active in the Mens' Garden Club in Oakland and religiously attended their meetings and helped with the annual Oakland Flower Show.

Lage: Did he sort of bring you along, did you feel? Was he fostering your interest in a career in botany, or was that already predetermined in your own mind?

McCaskill: Well, he certainly added several more sparks to my interest.

Lage: Did he ever encourage you to go on and get a master's?

McCaskill: He did think that I should go for a master's, which somehow I never did. I got into my job at Davis and stayed there. Once in a while I'd think, "Now, I must stop this," or "I really should take some more classes and do two things at once," which would have been possible. In some ways I'm sorry that I didn't. But Professor McMinn certainly encouraged us all along the way.

Lage: Was it a very large botany department?

McCaskill: No. You know, we talked about Mills, and I said I would go there again. And would I recommend that someone majoring in botany go there now? Well, you asked about the size of the department. Professor McMinn was the department chair. We had Cadet Hand who recently retired from Bodega Bay Marine Station; he was there teaching zoology. We had a woman, Lois Eubank, teaching bacteriology. The whole group of biologists was probably five people, and McMinn was the botanist. Now they have a

Dr. Bruce Pavlik who got his degree at Davis. He keeps in touch. He's very much enjoying his job there and taking the students on more field trips. They have them scheduled in the summer--the Mills girls in conjunction with the Davis botany students so that they do get more exposure to field work.

Lage: Sounds like a nice environment.

McCaskill: Yes, it was grand. I thoroughly enjoyed my years there. My closest friends, I would say, I met there. Some of my high school friends I still see, but you make stronger ties in college, I believe.

Lage: You mentioned Lucile Mason, and you had told me on the phone that you got to know her and Herbert Mason well. Do you want to say some things about that?

McCaskill: Yes. I don't know if it was after I accepted the job or was thinking of taking the job at Davis, Lucile had me come over to the Berkeley campus to the herbarium. That must be when I first met Annetta Carter and Rimo Bacigalupi. Lucile had me come to learn more herbarium techniques, and I would watch and observe and then work along with the mounters for a few days. Lucile and Herbert would take me up to their home for lunch and dinner. Another little thing I remember vividly was their cat, Figaro. And they had a young son named David whom I got to know better when he came and got a Ph.D. at Davis in limnology. Now Mrs. Mason is gone, but Herbert lives with his son, David, up in Bellingham, Washington. Herbert has very much slowed down, but his son said that he is able to enjoy the garden at their home and visits from old friends.

Lage: He must be quite elderly.

McCaskill: He must, yes--in his early 90s.

Lage: Was Annetta managing the Berkeley herbarium at that time?

McCaskill: Dr. Herbert Mason was the director while Annetta would have been what I would call the head curator. Also there at the same time was Dr. Helen Sharsmith, a noted botanist who later wrote the book Spring Wildflowers of the San Francisco Bay Region.

Lage: Did Mills have a herbarium?

McCaskill: A very small one. Mr. McMinn had one that he kept as a teaching herbarium. He didn't emphasize that aspect of it, so I hadn't learned all about running one. I don't believe we actually prepared any specimens there. We collected and studied them, for certain.

Lage: You didn't have to do the mounting?

McCaskill: No. I might have helped him try to reorganize the collection at one time. However, it was not a known herbarium. There are many small ones all over the state, of course, in institutions of higher education, but many of them don't do what formal herbaria do; they don't send out loans or have an exchange program going. And that was the situation at Mills. However, while Dr. Baki Kasapligil was the botany professor at Mills he added a worldwide collection of Quercus and Corylus. Although our times at Mills didn't overlap, we've become good friends, incidentally.

Interest in Allergenic Plants

Lage: Is there anything else you think we should cover about Mills?

McCaskill: Well, I think I just started to touch a point about the plants that cause hay fever. Professor McMinn had personal interest in that, and he published a book in the late 1950s, I believe it was. Actually, it was a soft covered, perhaps spiral bound book, Allergenic Pollen Survey of the San Francisco Bay Area. I still need to figure out why he called it that, in that he had the Bay Area but also many other areas of central and northern California. He had done pollen surveys all over these areas. We learned a good bit of that in class, since it was one of the things he was most anxious to share with us. We would put slides atop buildings, microscope slides with some adhesive to hold the pollen grains which lighted on them. Then we'd take them back to the lab from all over the Bay Area, count them, and calculate which were the biggest offenders amongst the trees, weeds, and grasses.

Lage: You mean you could identify the trees from the pollen?

McCaskill: Yes, each has its own distinctive pollen. We would learn to recognize one from another.

Lage: And did he publish in that field also?

McCaskill: He did publish articles and that one book a few years after we left. I think perhaps we were contributing a bit to his field research. I hope so.

Lage: That's an interesting side line, really, a long way from the shrubs of California.

McCaskill: And then, years later, far beyond Mills and Professor

McMinn's life, I got a phone call from Hollister Stier Laboratories one day. It's a pharmaceutical lab, and they said, "We have some doctors in the Bay Area who are allergy specialists, and they would like to learn something of plants that cause hay fever. Could you come and perhaps take them on a walk someplace and help them learn the basic plant identification? Point out some of the trees that were causing the trouble--and weeds and so forth." And I said, "Surely, I'd be happy to do that." And then I thought, what better place than Mills because of the great variety of plants, including the grand old trees--and you can park there. The representative from Hollister Stier brought a lunch. We would walk over hill and dale at Mills. Yes, there are hills; and a lake. We would walk up and down and around, and I would stop and point out the plants that are known to be, oh, say, the twenty worst trees in terms of hay fever. Then we would go another time of year when the grasses and weeds were at their height. The trees would be blooming in the spring and then, of course, the weeds are worse in the summer and fall, and the grasses overlap. So we had some delightful sessions there. In the middle of the day we'd sit down on the lawn somewhere, and the representative from the company had quite a spread, complete with cold cuts, wine, and cheese.

Lage: Sounds wonderful! When do we break for lunch? [laughter]

McCaskill: And, of course, it was at that time that I saw Mills through different eyes.

Lage: Going back and seeing the what a beautiful spot it was?

McCaskill: Yes.

Lage: When did you do this?

McCaskill: That would be for a few years in the nineteen seventies. So twenty years after graduation; twenty, twenty-five.

Lage: Sounds like a nice perspective.

Mills as a Women's College

Lage: In general, at Mills, just thinking of it as a women's college, did you have a sense of what they were preparing the women for? It was pre-women's liberation time, of course.

McCaskill: Yes. I guess to a degree I did. Actually, at that time

interestingly enough, the president was a man, Dr. Lynn White, Jr., a historian who had taught at Stanford. He felt, as did many people before him--President Aurelia Henry Reinhardt and Dean Hettie Belle included--strongly about women's education. This philosophy Lynn White carried over into his book, Educating Our Daughters. The president now is Dr. Mary Metz, and she's very highly regarded.

Lage: Did they think women should be educated to be generally liberal and broad-minded people, or were they thinking of careers?

McCaskill: True, it was considered a liberal arts college with emphasis on music and the arts. However, it was also strong in curricula preparing students for careers in education, the humanities, and community service. I never did finish the sentence, "Would I send a daughter there to be a botany major,"--only if the staff has increased considerably--then it would be good to go there as an undergrad and then be certain to go on for a master's elsewhere for the more rigorous type of botanical training.

When I was there we did have a few graduate students, including men. There was some off-campus living, and there were men that were getting their master's in arts and music. Dave Brubeck was one of them.

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Lage: Among your friends at Mills, were any of them preparing for professions or planning to go to graduate school, or were they thinking how quickly they could get married after college, which seemed to be more common then than now?

McCaskill: Actually, of my friends in the botany field, neither one went on in botany. One owns a travel bureau in L.A. and the other is at the Lawrence Berkeley Lab in the conference center. They do remember those days and enjoyed them, but did not find that that's what they wanted to do.

Lage: They got the broad, liberal education that Mills is well known for.

McCaskill: Right.

III DAVIS: THE TOWN, CAMPUS AND HERBARIUM IN THE 1950S

[Interview 2: April 11, 1988]##

A Small-Town Atmosphere

Lage: Last time we talked about your youth and education and how you met John Tucker at the California Botanical Society and were offered the job as curator in Davis. We're going to start out today with the beginnings of your job, what your expectations were, and what it was like to move to a new town.

McCaskill: Yes, we did talk about when I had met Dr. John Tucker. Actually, I wasn't hired on the spot. I was required, of course, to go to Davis for an interview. I was interviewed by the then-chairman, Dr. Vernon Cheadle, and Dr. John Tucker. I was shown the facility and around the campus a bit. John even took me around town to see some of the major sites, such as the ice cream parlor! It was in a small town.

Lage: Was this '53?

McCaskill: In the summer of 1953. I arrived on the Fourth of July to start the job. I remember seeing the Fourth of July kiddie parade. I was used to seeing the Pasadena Rose Parade, and this was just precious, really, so different. They had rolled out the fire trucks and the children on tricycles, little ones walking along, anything they could find that moved. The town was eight thousand people, and it was like a new world to me. It was so small.

It turned out to be wonderful, but at first I was apprehensive, I'll have to admit. The secretary in the department let me stay at her house while she was on vacation while I searched for myself someplace to live. I ended up in a rooming house with two other gals that worked in the department, and we had more fun! It was funny.

Lage: It sounds like a very friendly atmosphere.

McCaskill: It was. The town grew and I grew to realize you didn't have to live in a big town. It's far better to live where people are so friendly, so caring. It's a beautiful town in which to raise children, I might add. Not that I have ever had any, but I can see if I did, I'd like them there and in that school system.

Herbarium Headquarters and Directors

Lage: But you did have a little sense of "What am I getting myself into?", it sounds like.

McCaskill: Yes, the first day at work, the first few weeks, it took some getting used to. It was hotter than "the hinges of hell," as Grandad Alex used to say.

Lage: You were arriving in the middle of summer.

McCaskill: We were in a temporary building, it was called TB 4, Room 9, as I recall. I sat up on a high stool, and there were metal-top tables. The tables some days were so hot you couldn't put your arms down on them. So we would get a thermometer and keep it in there and read it often just to torture ourselves. [laughter]

Lage: When did that change? When did you get out of the temporary building?

McCaskill: We got into our new building in 1960. Previously the department had been in three different buildings. The main botany building was meant to be a garage. It was built so that both ends of the building could be knocked out when bigger and better class rooms were built elsewhere. Then it would be used for cars, but that never happened. Meanwhile the campus garage was built farther out on campus, and this remained the botany and teaching buildings until it was knocked over. Now the existing library is on top of our three old buildings.

I mentioned the first one was the garage, the second one was a huge old wooden-shingled building that we shared with the viticulture department. The third one that I was in was a World War II metal building, a long narrow building that was perhaps barracks or perhaps a medical facility, I'm really not certain, but it was temporary, in quotes! [laughter]

Lage: How many people were employed in the herbarium then?

McCaskill: There was me and a part-time student who did some mounting for us. The director at that time was Professor John Tucker, an oak taxonomist. He remained my boss for thirty-two years. And we

McCaskill: I like to think we grew up together. I respect him and am extremely fond of him. He's still in town, a professor emeritus at UCD. And, two years ago when John retired, Dr. Grady Webster became my supervisor, and I'm fond of him too. They're two entirely different personalities, but so grand to work for. I've been lucky in that respect.

Lage: It's nice to have that continuity, also.

McCaskill: Yes, it's amazing, isn't it?

Lage: Were they professors at the same time?

McCaskill: There was some overlap, but John had come to Davis, I believe, in 1948, and Grady came to us from Purdue in 1966.

Lage: What I meant was did they have professorial duties as well as directing the herbarium?

McCaskill: Oh yes, yes. The directors of all herbaria in the UC system are professors of plant taxonomy, systematics.

Lage: Now, how actively involved was, say, John Tucker, in the management of the herbarium? Did he just set policy and let the staff run things?

McCaskill: I would say that mostly he did set policy. We would talk things over, but he definitely made the major decisions. And then, of course, as I became accustomed to my job as the years went by, there were more and more responsibilities that I took over.

Lage: Was there ever a time you can recall where you had different ideas or clashing opinions about how something should be done?

McCaskill: No, no, not really. They're just, as I said, so grand to work with and we'd just work things out.

Chief Cook and Bottle Washer

Lage: I noticed your notes there on your initial expectations for the job. I think that's a very interesting way of looking at it, now that you're looking back from so many years of working there, to try to call back what your expectations were when you started.

McCaskill: Yes, well, when I went there for the interview, I was shown the facilities and I pretty much knew what to expect. It was a small herbarium. It had old wooden cabinets. John Tucker, in

McCaskill: addition to all his teaching duties, was trying to run this herbarium and answer miscellaneous requests and people wanting plants identified. He was trying to handle the whole thing.

Lage: And he didn't have anybody in the position that you took?

McCaskill: No, and he didn't have time for all those things, so I began to look into the cabinets and realize that it did need a lot of tender loving care, and so we started in. At that time there were fourteen thousand sheets, more or less, individual specimens. Today we have over a hundred thousand more. That's not really an impressive number compared to some herbaria, but in our situation, it's significant, I think, because I'm still the only full-time employee.

Lage: I would think your job has dramatically increased! Do you have more student help than you had at that time?

McCaskill: We do. We have work-learn interns, and we have work-study students, but I remain the chief cook and bottle washer. [laughter] I'm the receptionist, the office girl, the librarian, the curator, and the students come to me with their problems.

Lage: [laughter] The campus mother superior.

McCaskill: [laughter] Yes, thank you. I couldn't think what to call it!

Lage: Then you have the public service aspect. You have mentioned an incident that occurred shortly after you arrived in Davis that sort of indicated what you were getting yourself into in that area.

McCaskill: Oh yes! I think it was the first month I was there. Then the boxes were starting to come in--they're coming in faster and more furiously now. I receive things through the door and through the mail. Well, through the mail, all those years ago, came a box and a letter. The letter said that they would like this growth identified and that it was the shape and size of a basketball. It's good they mentioned that because when I opened it I couldn't see the shape or size. There were bits and pieces of a fungal growth called a puff ball remaining. What was so amazing were the plump maggots that were alive and well and running around. They had consumed the thing. [laughter] So that sort of set the stage for my years as a public service identifier of all things weird and wonderful.

Lage: And you seem so calm, I don't know how you do it.

History of Herbaria at Davis

- Lage: You also mentioned earlier, off the tape, that you weren't the only herbarium on the Davis campus. Let's clarify that.
- McCaskill: True. There was an older herbarium, just a few years older than ours. Ours was started in 1922, officially, and just a few years prior to that the agronomy department herbarium came into existence in Davis. It had been brought up from UC Berkeley. Here at Berkeley, it had been Professor P.B. Kennedy's herbarium, taken to Davis, and, until just two years ago, it was in the agronomy department housed in Hunt Hall, and with a curator named Beecher Crampton.

Beecher retired two years ago. It was felt that the space was needed for other things, and the herbarium was moved out into the hall and out into the agronomy field headquarters. Grady and I realized the value of it. It is an extremely valuable collection of not only grasses and range plants, but also a marvelous collection of plants from the Central Valley. The Central Valley has so changed now, you know, with I-5 and other major highways, housing developments, et cetera. The flora is being destroyed, and Beecher has documented much of that.

He has type specimens--in other words, the first copy of new species; species that he found when he was collecting, found and named, and henceforth are called type specimens. We realized that this collection must be saved, and it is now in Robbins Hall, in our building. It was moved over by a van and storage company--with me and my helpers packing fragile things into boxes.

- Lage: Was that a difficult change to make? Was the agronomy department reluctant to give it up?
- McCaskill: No. The chairman and the powers that be were wanting the space for things they considered more important.
- Lage: I see. They didn't have as much use for it as they may have at one time?
- McCaskill: That was part of their thinking, I suppose.
- Lage: Was there any reason to have it separated at an earlier time?
- McCaskill: Well, it's, I think, more circumstances. First, it came to agronomy; it belonged there. It was used for teaching the agronomy students. The botany department was starting a herbarium for the same reason, to be used for research and students.

McCaskill: Perhaps this is a good time to tell you how our herbarium started.

Lage: Yes.

McCaskill: Much like every herbarium in a teaching institution, you first start collecting specimens because you want to show them to the students. And Dr. Katherine Esau, in her plant anatomy lab—it was a tiny little room—managed to get in one herbarium case. She, herself, would go up Putah Creek, up the canyon and collect things, bring them back, and show her students. Then you start adding to it. John Tucker came, I was hired. I'm skipping some people that were involved with it before John Tucker. Then you realize that you need other plants of western North America. It starts growing, with bigger areas being represented.

Lage: Expanding the area that you're intending to collect in?

McCaskill: Not exactly. What happens is, you start exchanging duplicate specimens with other herbaria in the United States, and then in other countries. Now we exchange duplicate material with close to ninety other herbaria on every continent. In this manner you build up your own collection. It's much, I tell people, like swapping postage stamps.

Lage: It seems to have that quality.

McCaskill: Yes. And so you're able to build up and enrich your collection. You can't possibly go to all these places and collect them yourself.

Lage: So now you have an international representation.

McCaskill: Yes.

Lage: It's fascinating. It's something like a library, but the swapping is unique, I think.

McCaskill: It is like a library, like a reference library. All these specimens are housed in steel cabinets and are accessible. We know how to find them. In our herbarium we have them alphabetically arranged by family. We do have the lower forms first, and then the monocotyledons and the dicotyledons. Our feeling is, since we are just on one floor, the alphabetical way will enable people to find things quickly.

In the major herbaria, things are arranged phylogenetically with like plants near their relatives so that a researcher can come and find a plant family and its relatives without going up and down between floors.

IV DUTIES OF A HERBARIUM CURATOR

Curatorial Functions: Exchanges, Loans, Mounting, Cataloging

McCaskill: There are many more curatorial duties I have, of course, and we could talk more about that if you want.

Lage: Yes, I would like you to. Let's cover the ones that aren't related to public service first.

McCaskill: Well then, curatorial duties consist of handling exchanges, we talked about that. Loans--we have loans coming in and going out almost every day. You come into our herbarium and it looks a tad like a box factory. That's partly because we're not funded well enough to have steel cases for everything, so we have many things in these temporary Merrill boxes. A Dr. E.D. Merrill, visiting on the Berkeley campus from Harvard, thought of having special cardboard boxes made for temporary storage, and his name has been attached to them ever since.

We do borrow specimens for our faculty's research, faculty and staff, and for graduate students. For example, one of Grady Webster's graduate students would be studying something in the Euphorbiaceae, Grady's special family, and we would borrow for that student specimens from other herbaria around the world. We'll generally borrow several hundred of them. I think the largest number of specimens ever borrowed for one student was four thousand sheets.

Lage: All from one herbarium?

McCaskill: No, from several--both domestic and foreign. Maybe we should have a typical day. In comes a loan, and several days beforehand has come the forms that go with the loan telling us how many specimens are coming and what they are, and then the package will arrive. We unpack them, count them very carefully, fumigate them and file them away. When you borrow from other herbaria it's extremely important to treat their specimens

McCaskill: carefully. They've given us the courtesy of loaning us their plants, and we must fumigate them, keep the bugs out of them, keep them in steel cabinets and count them several times to make sure that the count matches the number on the invoice because when you return them, you don't want to be one short.

Lage: And the fumigation, is that something you have to do regularly, on a regular basis, or just the one time when they come in?

McCaskill: When they come in, and if they've been out on the table tops too long. That would be the main thing with the loans. We could talk about fumigation for other materials, but for the loans that would be it.

Lage: You were going to give a typical day. Should we go on with that? We've got a loan and fumigated it.

McCaskill: Okay. Work-study students have come in. By then, perhaps, one or two undergraduate students who earn money by mounting the plants, this brings up the subject of herbarium lingo. I think every profession has its own special jargon, and when we say mounting, that means pasting the plants down onto herbarium sheets, special paper that's supplied for that purpose.

Lage: These would be newly gathered plants?

McCaskill: Yes, they could be, but not necessarily newly gathered. They could have been gathered just a short time ago, but they could have been sitting in the herbarium for quite some time waiting. We have such a backlog that they could have been sitting there two years or more waiting to be mounted.

The mounter would paste them onto the herbarium paper, put straps on them, and put an accession number on every sheet. We keep records of the accession so that we know how many specimens are in the herbarium, and, more than that, it's important that every museum catalog their holdings because when you loan them, for example, you can record who has borrowed what.

Public Information and Reference Service

McCaskill: Meanwhile the telephone is ringing and we have requests for. . . . "Could you tell me, are the plants blooming on the desert yet?" It's springtime, you know, and they're wondering what would be the hot spots where they could go on a trip and see a good display of wildflowers.

Lage: Do you keep up with that kind of information so you are a good place to call for that?

McCaskill: We try to. We try to keep up on things like this. We have notices out on our door of field trips and plant displays, seminars in our own department, on campus, et cetera.

Lage: If I wanted to go to Anza Borrego, could you tell me a good time of year to go?

McCaskill: Well, I could do that or suggest someone that you could phone. We do a lot of networking. We get calls about, 'What would be a good wildflower book I could use? I don't know a thing about identifying them, but I'd like to try to learn and could you suggest some reference material?'

Lage: So a lot of this is general public questions?

McCaskill: General public questions, yes.

Lage: Does the University fund you for this kind of thing? Do you have a position in the herbarium that the University might fund as a public service?

McCaskill: No, that's just a part of my duties.

Lage: It's just your duties in the botany department? They accept the tab on that?

McCaskill: Yes. We consider it extremely important. I remember when I first arrived on the job, John Tucker reminded me that we're a land grant college, and we are serving the public. If it weren't for the taxpayers we wouldn't be there at all. He urged me to, whenever possible, drop other duties and do the public service work first.

Lage: That's very interesting. Has that been a continued thrust?

McCaskill: Yes. We've continued with that policy.

Lage: People know about it, and that's why they call so much.

McCaskill: Oh yes! They definitely do, the word has spread far and wide. What's fun is we're still thought of as the aggie [agricultural] campus. In 1953, just near the time when I arrived, it was changed from a strictly aggie campus to a general campus. The vet school was new. We now have a law school, a med school, everything that a major campus would have. None the less, we're thought of as the aggie campus, and people are very aware of the fact that weed control research goes on in our department. We have many plant physiologists researching weed control. The

McCaskill: Cooperative Extension people in all the counties contact our Cooperative Extension men housed in our building. The public should first send their problems to their local farm advisor; and the farm advisors in this state are excellent, I must add. For thirty-five years I have been corresponding with them, talking by phone, seeing them at meetings, and I respect them highly. They willingly serve people in their county, but if they need some new information or have problems identifying the weeds, then they will turn to us.

Lage: So they come to you as a reference place?

McCaskill: Exactly.

Lage: And I know you're going to have some examples for us on some of the kinds of requests you get. But let's go on in a more general vein, and then we'll come back to some specifics.

What about assisting students and professors; how do they use the herbarium?

McCaskill: The herbarium is used for research and for educational things such as loaning them to faculty that are going to show them in their courses.

Lage: So they can go out of the herbarium to the campus?

McCaskill: Yes. We not only send them out on loan via the mail, but we loan them to people who are giving seminars, teaching classes. We ask, of course, that they be extremely careful. We put them in plastic folders. If a person has a legitimate request, we're happy to do this. We don't like to have a closed door policy, as a few herbaria do have, I've been told. We feel that it's there to be used and is of little value if never seen.

Enemies of Specimens: Light, Insects, and People

Lage: Have you been disappointed in very many cases? Do you have cases when things get stolen or damaged?

McCaskill: No, we haven't. We've been very lucky that way. We learned early on that the enemies of the specimens are the light, the insects, and people. But we do our best to keep on top of all of this. We've had minimal damage by people.

Lage: That's good. And the bugs you take care of with fumigation. Now what about light?

McCaskill: Light fades them so rapidly, and that's why they must be housed in cabinets away from light sources. We had wooden cabinets when I was first there, but the wood keeps the light out, but not the insects.

Lage: What about these Merrill boxes?

McCaskill: The Merrill boxes you were just asking about, they're meant to be for temporary storage, but, when there's funding problems, the "temporary" can go on for decades. Our goal is to get all specimens housed in air-tight steel cases.

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Lage: Then you fumigate regularly?

McCaskill: Yes, we try to keep on top of this. That's difficult when you're dealing with that many specimens.

Lage: What do you fumigate with?

McCaskill: When I first arrived on the job there was an old air-tight ice chest. We used carbon disulfide in a little metal container. Without really thinking of what it was doing to our health, I suppose, we would pour it into this little container, put it in on top of the specimens--balance it on a pile of specimens in this box--and then leave it there for forty-eight hours, and it would do the trick. Then the Environmental Health and Safety people came along down the road a few years and said, "You can't do this."

Lage: Do you remember when that concern came up?

McCaskill: It was in the 1960s. People were more aware of their environment, as you well know, in the sixties. On our campus we have an Environmental Health and Safety facility, and their job is to look out for the health and safety of the people and the animals on campus.

Lage: So they do inspections?

McCaskill: They do inspections, and once decreed that we must not use this any longer. Meanwhile, we'd had moth flakes hanging in cloth bags on every cabinet door, and we were also told that we could no longer do that. So they suggested that we use pieces of vapona or Shell No-Pest strips.

Lage: I always thought those were terrible for you.

McCaskill: You're right! You've hit it right on the dot! John Tucker and I went to a statewide herbarium meeting, and the whole subject of fumigation came up. We learned the problems with

McCaskill: the no-pest strips. It was so horrifying to hear what it would do to a human being that when we came back we simply stopped using them. The bugs soon moved in, and our problems accelerated.

Then we started putting the specimens in a heat box. But in this heat box you could put only so many, and our room is built so that you can't fumigate the entire room at once. Anything that you use will go drifting through the ceiling down to the next room and throughout the entire building.

Lage: So it wasn't just you that fumes from fumigation were affecting.

McCaskill: Exactly, yes! People were complaining, and rightly so. When we had too many moth flakes their odor was a bit much. People, I'm sure, were affected. I imagine that all of us that have been there so many years are affected to a degree, I don't know. I personally haven't had problems that I'm aware of.

The current and best thing to do is use a freezer to freeze the specimens. We put them in a freezer at zero degrees, and thereby kill the insects and any of their larvae or eggs that might have been laid. It's also better than heat because the specimens don't get too crisp and break apart.

Lage: So when you say fumigate now, you're really referring just to freezing?

McCaskill: Yes, true.

Retrieving Specimens

Lage: What kind of cataloging is used? I'm calling it cataloging because my model is a library. How do you find the specimens?

McCaskill: People have actually asked us, "Where's the card file? Do you have a card file, or is all of this in a computer, your one hundred and fourteen thousand plants?"

Lage: I was going to ask you that.

McCaskill: Now with the Crampton Collection added, it would be closer to one hundred and forty-five thousand. But, no, there is no catalog because each specimen acts as its own card. But we have them arranged so that anyone can retrieve them by knowing what family they are in and whether or not it's a monocotyledon or dicotyledon. But this is easily explained to anyone that doesn't know when they first arrive.

Lage: Some of these families are huge; now, how would you go about it if you want one particular species in the family?

McCaskill: I see. We have reference books on hand. You can look up in our reference books what family you're looking for. For example, if you came in and you knew the genus of a plant but you didn't know what family, you could look it up. The families are arranged alphabetically in the cabinets. Within the families, they are further refined to being alphabetical by genus and then going on down to species and subspecies level alphabetically.

Lage: So it works like a catalog.

McCaskill: It is. It's serving as its own catalog. Few herbaria could afford the luxury of keeping a card file. Now, with computers it would be much faster, indeed a wonderful thing to have. Some herbaria with larger staffs are doing that. For example, the New York Botanic Garden has great interest in ethno-botanical data, and so they have put into their computers information gleaned from the specimen labels. So you could, by punching some buttons, find out what Indians in what areas of the world use what plants for medicinal purposes and in what period of time.

Lage: And, for making loans, and knowing what specimens are in which herbaria across the country, wouldn't a computer system be good?

McCaskill: It would, indeed, and some year all of the herbaria of the world will be hooked up to one another. There's a real effort to do that in the United States right now. We have not purchased a computer yet. We're hoping to get one soon. The herbaria that do have them are networking with each other so that they know who has what plant material.

One way that we figure things out is with an international book called Index Herbariorum. What it is is a reference book that tells you all about the herbaria of the world. You can look them up; they're alphabetically by cities. So you can look up Davis, see what the holdings are there. It gives the number of specimens, the staff members, the specializations, whether or not you produce a periodical, whether or not you're willing to loan your specimens, things of this nature.

Lage: It's accessible, it sounds. You've been managing for quite a while without a computer.

McCaskill: It's true! There was a time when we managed without a photocopy machine! [laughter]

Lage: I've seen photocopies of the plants actually go out, instead of the specimen itself.

McCaskill: Yes, it can be done if the plant is not too bulky. This is not a wise thing to do, really, in that each specimen is a museum piece. I tell the students that, and they look at me quizzically and ask, "Really, June. A museum piece?" But they truly are. They last for decades. Actually, for centuries. You can turn them upside down if they're well attached. It's quite all right to slip in a corner of the sheet and photocopy the label. Sometimes the other institution is just wanting the label copied so that they can tell where a certain species has been collected and when.

V FROM SOUP TO NUTS: PUBLIC SERVICE

Service to Cooperative Extension Farm Advisors in Weed Control

Lage: Let's talk about the different groups that you serve; some we've mentioned already. We've mentioned the farm advisors, for instance. Maybe in talking about each group, you can tell me a typical request that you might get.

McCaskill: Okay, fine. The farm advisors are, by far, the largest group of people that we have served regularly through the years, and they are, as you know, in every county in the state.

Lage: And they're employees of the university, aren't they?

McCaskill: Yes, it is the University of California Cooperative Extension Service system. The farm advisors out there in the county offices will send us weeds when they're stumped, and they'll send them most often in plastic bags; sometimes seedlings, sometimes the entire plant, sometimes bits and pieces of plants because they are unable to do otherwise—that's all that's available.

We receive the largest amounts from agricultural counties, understandably; from the Central Valley, a good many come from Fresno County, Kern County with the cotton, from all the counties, with field crops, orchards and vineyards.

Lage: Why are they concerned about identifying a certain weed? What would be the problem they're confronting?

McCaskill: Well, it's often a matter of what herbicides can be used on what weeds. We're out of the day of the hoe. There was a time when that's about all you could do. We now have herbicides, and they are selective, so you have to know which herbicide to put on what plant. I have been fortunate enough during my career to see research in weed control become an acceptable science—weed science.

Lage: During this time period?

McCaskill: Yes. We also serve the campus community; that would be, of course, anyone that wants to come in and ask, "What is this?" Often times it's, "Is it edible? Can I kill it? How can I kill it?" When control measures are wanted I send them to the Cooperative Extension people in the other part of our building. We have a neat sign on our door that says, "You press 'em, we guess 'em." So they bring them in, I name them, and someone else kills them. [laughter]

Lage: You don't have the responsibility for finding a herbicide.

McCaskill: Right. And we do work together with the extension people. We have a good thing going there. They have a grand staff—it always has been—and we work together well.

Lage: What about plants that are poisonous to animals?

McCaskill: Yes, the farm advisors, of course, have people asking them questions about toxic plants because they may have had livestock losses.

Lage: Is that common that livestock are lost to toxic plants?

McCaskill: Yes, very. Yes, it is. The figure's not on the tip of my tongue, but I believe it's close to twenty-million dollars worth of animals lost per year in California due to toxic weeds. So we have the situation where someone comes in directly, or a veterinarian will turn to his local farm advisors and ask for plant identification, and they in turn will turn to us. We have an extensive toxic plants file that students put together, a reference collection of articles that can be accessed by computer.

Lage: Then that's become kind of a specialty with you, as I understand, the weed study.

McCaskill: Yes, the weed study, for sure. We are the herbarium with the largest collection of weeds. We have more plant science departments than any other campus, and we have Cooperative Extension people in every one of those plant science departments. So we are turned to more often than any other UC campus. And yes, weeds are one of our specialties.

Lage: And have you, yourself, done some publishing in the weed area?

McCaskill: I've been co-author of the Growers' Weed Identification Handbook since it began in 1962. A farm advisor named Bill Fischer in Fresno County started this with the help of another extension person named Art Lange. Early on they asked me if I

McCaskill: would do the taxonomy, check the names, be sure that they were correct and up to date. I soon found myself involved in the editing of it, also, and more heavily as the years went by. I've remained a co-author in this endeavor.

It's published by Agricultural Publications of UC. It is a loose-leaf book that serves the grower. We have one sheet per weed. There will be pictures of the seedling stage and the mature plant stage complete with flowers and fruit. On the back side will be a description of where this weed occurs, whether it's annual or perennial, what crops it's in, the problems it causes, how it looks in all the stages of growth, whether or not it's toxic, and other common names it's called by. More recently, we're adding a new paragraph to each one of them on more of the biology of the plant. This will make them much more valuable to the grower.

Lage: Why does a grower need to know the biology?

McCaskill: It often figures into control measures used. First of all, you need to know if it's annual or perennial, what its growing season is, and what time would be a good time to apply the herbicide, use cultural methods of control, or a combination of both.

Lage: Have they come up with any kind of biological means of controlling weeds, or is the focus pretty much on herbicides? I mean, I know they have biological pest controls, but is there any biological weed control?

McCaskill: Oh, there is, yes. I think of the genus Hypericum. There are beetles that will attack Hypericum perforatum, St. Johnswort. It is known that certain insect species will attack and keep down the population of certain weeds.

Lage: Is that a new direction?

McCaskill: Not really new. This has been going on for probably forty years. The work with the Hypericum beetles was the first success story of the USDA's Biological Control of Weeds Lab in Albany. This weed was introduced into the western U.S. from Europe, and rapidly infested rangeland. It arrived without its natural enemies, so the USDA people imported them from Europe in the 1940s. One species of beetle attacks the leaves, another the stem. A second success of these researchers was the control of Tansy Ragwort, a toxic weed in coastal California.

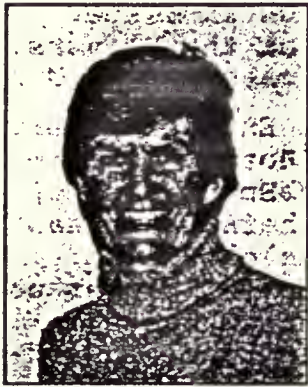
THE "AWARD OF EXCELLENCE"

In 1985, after two years of consideration by the California Weed Conference Steering Committee and the Board of Directors, an "Award of Excellence" was established to encourage younger members by recognizing their achievements in weed control. Criteria were established and nominations were to be made each year to the Awards Committee appointed by the Board of Directors. Awards were to include four categories: Education, Research, Public Service and Production.

In 1985 Three were chosen:

June McCaskill	Public Service
Jack Schlesselman	Research and Production
Tom Yutani	Education and Public Service

Information regarding these individuals follows...



B. JUNE McCASKILL

June McCaskill received the Award of Excellence "In Recognition of Outstanding Contributions in Public Service". The Award was announced at the 37th Annual California Weed Conference held at Anaheim in 1985.

Says McCaskill "I was raised along with plants in the family's camelia nursery in Pasadena, so love of plants - even weeds - came naturally." She attended Mills College in Oakland, California, graduating with a bachelor's degree in Botany in 1951. Two more years were spent on the Mills campus assisting with the teaching of nurses from Merritt College.

June next joined the staff of the University of California at Davis where she is in her 33rd year with the Botany Department Herbarium. In this science resource facility she directs the processing and maintenance of a world-wide collection of over 100,000 pressed plant specimens made available for reference and research. Along with a myriad of curatorial duties, one of her major responsibilities is public service. In this capacity she identifies plants and provides miscellaneous information regarding them to farm advisors, ranchers, environmentalists, veterinarians, doctors and the general public. This work ranks high in her priorities, particularly when livestock losses or human lives are involved.

McCaskill is a familiar face at Weed Day and at county meetings. She has authored weed articles through the years and co-authors the *Growers Weed Identification Handbook*.

Drawn to her plants in her leisure time as well, June visits botanic gardens in her travels and is an ardent supporter of them. She holds memberships in arboreta and botanical societies, and currently serves as Membership Chair of the Friends of the Davis Arboretum.

Identifying Rare and Endangered Plants

Lage: You've also mentioned serving environmentalists, so let's move on to that.

McCaskill: Yes, well, when I think of the environmentalists, I of course think of the rare and endangered plant program that's going on in this state, but not yet in every state in the U.S., unfortunately. California was one of the early ones to start this program--it was begun by the California Native Plant Society in 1968. At the data base [California Natural Diversity Data Base] in Sacramento, all 700 state listed rare and endangered plants are monitored. They have very sophisticated computer systems, and, with the help of the staff and their resources there, much information can be gained. For example, you could ask in what areas does a certain plant occur, how endangered is it, how threatened is it.

Also, I imagine you've heard of the environmental impact reports that have to be made, are actually required by law. People working on these reports will come to me with samples of plants collected from areas under consideration for development. They need to know what they are so they can plug them into their report. And oftentimes they want to check herbarium specimens.

Lage: I see. They want to know if they are endangered?

McCaskill: Yes, it's imperative that rare and endangered species are pinpointed when the reports are made, because these reports provide the basis for land-use decisions.

Lage: And then, do you have access to these files in Sacramento, or do you tell them where to go?

McCaskill: Both. I can use the services of the data base myself, of course, but mostly it's a matter of referral.

Lage: Part of your job is as a directory service.

McCaskill: It is, indeed. Oh yes. In fact, I often direct people to the other plant science departments on our campus. For example, they'll bring me in a piece of something that I know is in the gourd family, but, heavens, it's a very large and difficult family, and there are people in the Vegetable Crops Department who would know better than I and help them out.

Also we have the Pomology [the practice and science of fruit growing] Department. So if someone arrives with an exotic fruit I don't recognize I can refer them to Pomology.

McCaskill: Viticulture [cultivation of grapes] is another example. We have Plant Pathology, Genetics, Environmental Horticulture, Agronomy and Range Science, also.

In our herbarium, we have more requests for the identification of weeds and native plants. We also have some requests for ornamentals, they're called, or cultivated garden plants. If I have a cultivated tree that I am unable to identify or am not sure, I will send it to Environmental Hort [horticulture] where we have Dr. Andrew Leiser, a wizard with trees. That's his specialty, tree identification. And we work with the arboretum also. There is a very talented staff out there. Warren Roberts, in particular, is good with all flora, native and otherwise. So we work back and forth. We are indeed fortunate to have all this talent on the Davis campus.

Lage: Yes, I was amazed when you just listed all the departments in the plant area.

McCaskill: I think there are ten; I'm sure I've forgotten some.

Assistance in Crime Control

Lage: Okay. Annetta Carter has sent me a clipping having to do with some of your exploits in helping solve crimes. I think that would be interesting to talk about. It's probably not a typical request you get, though.

McCaskill: No, but there's a certain amount of that. You read the article and of course, the newspaper wants to sell newspapers, so the sensational things are what strike you first. But those are really not what's foremost in our minds at all. But they're interesting.

Lage: But it's still something that you do and, of course, they are another group that you serve, the police.

McCaskill: True. I think the first one mentioned in the article is when Juan Corona was the alleged murderer of farm workers up in the Marysville area. That was in nineteen seventy-one. Some investigators came into our department and wanted to see Dr. Ernest Gifford, our plant morphologist, and wanted to figure out how old the grave sites were. There was freshly turned dirt on some of them; there were seedlings coming up in some areas; there were older weeds around the orchards. The idea was to find out how long the grave sites had been there. Dr. Gifford

McCaskill: could help them in this regard by estimating the growth rates of the plants. They also had to be identified, and this is how I fit into the picture.

Lage: Did you find out if this was useful to them?

McCaskill: Actually, I did not hear from them again directly, but we were told that it was useful.

More recently we had plants brought in to us, and we weren't told the whole story; we were simply told there had been a murder and asked what were these plants? I identified them all and soon realized there was a pattern; they were all from along stream sides. So that would figure into something--was the body found at a stream side? Was the murder done there?

Lage: Did you relay that information to them?

McCaskill: We did, but we have not heard yet. I believe that trial hasn't come up.

Lage: Have you ever been called to testify?

McCaskill: No, I have not, but faculty members in our department have in regard to drug related plants. There was a case where two of our professors, Ernest Gifford and John Tucker, prevented a trial from coming about. A young man came to them in the sixties and said, "I am being accused of growing marijuana in my back yard. It's there, but I had no idea it was when I moved into the house." He was trying to prove his innocence. It could be done because the plants were in the ground in his garden, and by checking root systems, girth of stems, etc., you could figure their approximate age and that they were there before this new occupant of the house was, and so he got off the hook--the charges were dropped.

Lage: Did they go out and investigate it for him?

McCaskill: Yes, I'm sure they did.

Lage: That's a very interesting use of the university herbarium.

McCaskill: Yes, we've had interesting stories, other marijuana stories.

Lage: Give me another one.

McCaskill: It's an in-house sort of thing, but one day Dr. Gifford came to John Tucker and me. We were busily working in the herbarium, sending out exchange sets, and he asked, "June and John, would you come with me? I want to show you something down in the greenhouse." So we went down, and there were dozens of marijuana

McCaskill: plants all nicely potted up and sitting in rows. What's fun about the whole story is that our head greenhouse man was dutifully repotting them for a graduate student. The graduate student had told him they were peony plants. They were certainly not peonies, and the word got to our chair, eventually to the chancellor, and it was a pretty serious situation there. Ever since then, any time that there was a plant that was believed to be marijuana, the greenhouse people would bring it in to me, sometimes covered with wrapping paper—under cover so to speak—stand there and grin at me and I'd say, "Okay, Harold, you've got marijuana; I know, I can tell potted pot before you even uncover it." [laughter]

Lage: So this happened more than once, growing the marijuana in the greenhouse.

McCaskill: Yes.

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Lage: You mentioned that sometimes you get neighbors who are trying to--

McCaskill: Yes, sometimes people will get upset with what they consider over-rowdy students, and if they see something suspicious such as marijuana, they'll bring it in. More often than not it's not marijuana at all. We've seen bear's-breech and house plants that they believe resemble it.

We also see, I forgot to mention, opium plants. There was a story there that's interesting. Dr. Tucker taught a poisonous plants course required for veterinary students. In that course, he wanted to show opium plants, and so we got them where we could.

One day I was going down into the central part of Davis and I saw a wonderful bed full of them out in front of a house. I stopped and explained who I was and how beautiful I thought they were, and I certainly didn't want to be greedy, but could she spare just a few of the flowers for a good purpose. She said, "Fine." She said that her father had sent her the seeds and told her they would be beautiful plants, and did I have any idea what they were? And I said, "Well, yes, they're opium poppies." She looked startled and I said, "No, don't worry. I'm not here for that reason at all." It was certainly up to her to grow what she wanted. True, it's illegal, but I didn't mean to upset her. But the next time I drove by, the bed was gone.

Lage: They are beautiful plants?

McCaskill: They are very beautiful.

San Jose Tribune, February 27, 1988

She knows her weeds

UC herbarium curator offers valuable expertise

by Dale Rodebaugh
Mercury News Staff Writer

When Sutter County officials were trying to determine the order in which farm laborer Juan Corona killed 25 field hands in 1971, they turned to June McCaskill.

McCaskill is not an investigator, and she's not a detective. She is among the state's foremost experts in weeds.

Amid the police and the pathologists, it was McCaskill's identification of weeds found near the victims' graves that paved the way for authorities to figure out how old the burial sites were.

Although that's not her usual kind of sleuthing, McCaskill, 57, is been confronting questions just as puzzling during the 35 years that she's been curator of the herbarium at University of California, Davis.

She receives more than 1,000 requests a year to identify plants — and sometimes the answers she supplies could mean the difference between life and death.

Two months ago, she said, physicians at a Davis hospital emergency room asked her to look at a plant that a toddler had eaten. When she said it was a deadly nightshade, doctors were able to save the baby's life.

But by far, the largest number of requests come from county farm advisers, who call on McCaskill if a dairyman's cows quit producing, an alfalfa grower finds a suspicious-looking weed in his field or a rancher's horse is not eating its feed.

McCaskill's answers are important because the animal's ailment may be caused by something it ate. More than \$27 million worth of horses, cattle and sheep die each year from eating poisonous weeds, she said.

McCaskill — who oversees a domain that includes what is possibly the largest collection of weeds and poisonous plants in California — also identifies plants for conservationists interested in endangered species, consultants preparing environmental impact reports and backyard gardeners. The "back-to-nature" craze of the 1960s brought many

requests from people who wanted to live off the land.

"Envelopes and boxes containing plant specimens, even bales of hay, come in almost every day," she said.

McCaskill often recognizes a plant on sight, but sometimes she's stumped. Last week, she received unfamiliar specimens from a Napa Valley grape grower and a San Diego nurseryman.

When that happens, she gets out her microscope and reference books or asks experts in the Davis botany department for help. If it's a real toughie, she plants the specimen and waits to see if it bears flowers, a better means of identification.

One plant that is instantly recognizable is the opium poppy, McCaskill said. Once, she said, she discovered a number of them in a neatly kept residential flower bed while looking for specimens for a poisonous plant class. The owner graciously allowed her to pick some, saying that she didn't know what they were, but that friends had sent her the seeds.

"I told her what they were and that it was illegal to grow them, but that I didn't care what she was doing. But the next time I drove by there, they were all gone," McCaskill said.

The herbarium was named in honor of professor emeritus John M. Tucker, who was its director from 1947 until he retired in 1986. It houses 150,000 dried and pressed plants in metal filing cabinets, which spill into the hall on the second floor of Robbins Hall.

An average of 3,000 specimens are added each year, including those the herbarium receives in swaps with 90 institutions — 42 in foreign countries. About 2,000 specimens that McCaskill helped a professor of nutrition collect in Greece three years ago are among plants awaiting cataloging.

The UC-Davis herbarium is small compared to those at the University of California, Berkeley and San Francisco's Golden Gate Park, which have an estimated 1.5 million specimens



Dale Rodebaugh — Mercury News

LIVING CLUES — Plant expert June McCaskill was once asked to study the weeds on the graves of the farm laborers that had been killed by Juan Corona. Why? because this would tell officials more about the order of the murders.

each. But it is the fifth-largest in California and is noted for its 10,000 examples of more than 600 species of weeds.

Weeds were not the first love of McCaskill, who virtually was reared in the ornamental plant nursery that her father still operates in Pasadena. In fact, she didn't choose botany as her major until she'd been at Mills College for more than a year.

"I was an English major, but one day I said, 'This just isn't me.' So I changed to botany and felt so comfortable," McCaskill said.

In 1953 at a meeting of a native

plant society, she met Professor Tucker, who invited her to become curator of the herbarium.

"I'm one of those rare people who likes her job. I wake up every morning and think, 'This is neat,'" McCaskill said.

In addition to enthusiasm, McCaskill has a sense of humor that's apparently as dry as the pressed plants she collects. On the door of the herbarium is a sign in fractured Latin that says: "Hortus Mortuus u presum, ouigesum." Roughly translated: "Dead plants, you press 'em, we guess 'em."

Lage: Are they like our California poppies?

McCaskill: No, not at all. They are tall, with much bigger flowers, and they can be either single or double, double with more petals in the center. They can be white or rose or red, and at the base of each petal there will be a black spot. Also, their foliage is very distinctive.

The "Magic" of Identification: Experience, Aroma, and the Right Book

McCaskill: Once you asked me if I had a sixth sense, or how was I able to identify these things. Actually, I have no magic at all. Some people think I do. I'm flattered when I receive a petal, for example. It's like when the entomologists receive one wing off of an insect. You're really flattered because they think you are a miracle worker, and I'm not at all. It's just that when you've identified the same things for so many years, you begin to look for little clues that aren't obvious. The plants exhibit some features that people aren't aware of and aren't written down in any of the books.

Lage: Would you tell me what some of these are? What do you look at first if you get an unusual plant?

McCaskill: This is an example that's given often. The mint family is very distinctive. So if you see a square stem and there's an aroma-- there is almost always a pleasant aroma in the mint family. That, combined with an irregularly shaped flower and the shape of the stem, will get you into the right family, and that's half the battle. You always ask the bearer of the unknown, "Where did you get it?" This is the first question.

I remember Professor McMinn back at Mills, he always said, "Be sure you get in the right literature." And I see people make this mistake over and over again, people that have taken plant taxonomy at Davis. They've used Munz's A California Flora, and they are so in the habit of using it that they pick it up when they are trying to identify a cultivated plant. Of course, you're not going to find it in there unless it's a cultivated plant that has escaped into the wild in California.

Back to Professor McMinn; he drummed it in us that "Where did it come from?" is the first question, and then go to the right book. By seeing things through the years, so many plants, I can generally jump into the right area without starting at the beginning key.

Lage: You said that some of the things aren't even written down that you begin to notice, am I correct?

McCaskill: There are so many, many things. For example, you begin to recognize the great diversity in leaf shapes within a plant group. People will argue with you about this--they'll bring in a plant and say, "That couldn't possibly be poison oak. It looked more like periwinkle." But through seeing so much of that through so many years, I know all the leaf forms that are displayed.

Lage: It may not be just what you see in the guide of the identification book.

McCaskill: True, yes. Another clue is aroma.

Lage: That isn't written down.

McCaskill: Well, it's a very hard thing to describe. Floras will use the terms pleasant, or fetid, or just the term aromatic, but I'm thinking of poison hemlock. It will say that the smell is unpleasant. Actually, I suppose a lot more is written down than I indicated. But since poison hemlock is one of the biggies in my life--it's one of the most toxic plants, as is water hemlock--I want to use it as an example.

It's in the carrot family and people will bring it in in all stages of growth and I tell them there are three things to watch for. You'll look for the red spots on the stem. You'll look for the finely dissected foliage. If you would let a carrot mature--usually they are snatched out of the ground in their youth--it would have very delicate, beautiful foliage as does poison hemlock, but the hemlock will have the measles, I call them, on the stem, and it would smell funny. The best way to describe it is "like a dead rodent." I've found that if you let the plant dry up and you keep it in a paper bag, say, for some time, and then open it up, the smell comes out loud and clear. You've either got dead rodents or poison hemlock!

Lage: Did you use this description of the smell in your book on identifying weeds?

McCaskill: Well, the identifying characteristics, the spots, would have been there. Yes, I think we did.

Service to Poison Control Centers: "Miss Nightshade"

Lage: Can you think of any other stories about the kinds of service you're called on to perform, things that we might have missed?

McCaskill: Another very important one, we touched upon veterinarians and livestock poisoning and fatalities, but we didn't talk about human poisoning. We do get calls on that.

Lage: Is that a frequent thing?

McCaskill: Not nearly as frequent as calls concerning animals. But as you know, and I hope more and more people become aware of, there are regional poison centers in the major cities in California and across the United States. Our nearest one is in Sacramento and is associated with the UC Davis Medical Center. The poison center, in its infancy, was calling us more often, of course. They weren't fully staffed, and they were building up their reference materials. They didn't have an awful lot to go on so they would call us, and we would help them.

Other times we get calls directly from the doctors themselves in a scenario something like this: you have the doctor on the telephone, and you have a very concerned mother. Understandably, she is nervous as can be. Her child has swallowed some plant parts, and she usually doesn't know how much, and so she rushes him in. The doctor usually would get the child to throw up the material by giving him ipecac. But you can't always do this in every case and it is important that they know what plants they're dealing with, so they'll call us.

I get calls at home, too, as does Dr. Kenneth Wells in our department, our mycologist. He'll get calls about poisonous mushrooms.

Lage: I bet that's not an uncommon problem.

McCaskill: Right, it's a very, very common problem. He gets many emergency calls.

We're happy to help with this. The last time I was called from a hospital it was on a weekend, and a young child had swallowed bits of a garden weed. The mother had managed to bring a sample of the plant to the emergency room.

Lage: And you take along a guidebook with you, or you just think you'll recognize it?

McCaskill: I grabbed a book or two and hoped that I'd recognize it, and I did. It was nightshade and the child had eaten berries, but luckily he had eaten the ripe berries. The ripe berries of nightshade are harmless. So the mother was relieved and planned to go home and eradicate the nightshade.

Lage: Is that a common plant around the home areas in Davis?

McCaskill: No, it isn't. I was surprised she had that much. It's one of the major weeds in tomato fields, however. It's plagued tomato farmers for decades. We've done a lot of identifications for growers. I'm getting sidetracked again, but tomato growers are plagued with both dodder and nightshade. I bet you've seen dodder. It looks like orange threads or strands of hairs that have been thrown over the bush. And they're host-specific. Certain species of dodders will grow only on certain species of plants, and there are some that attack tomatoes. Several species of nightshade are in tomato fields and reduce the yield by being strong competitors with the tomato plants themselves. An interesting thing is that they're what I call cousins. The tomatoes and their enemies, the nightshades, are both in the same family.

Lage: But they're not a parasite?

McCaskill: The dodder is and the nightshades are not. I've been asked many times to give talks at weed workshops and meetings on the nightshade problem, and they started calling me Miss Nightshade. I remember that early on I was Miss Weed. [laughter]

Lage: I've heard you were Miss Weed, but I hadn't heard Miss Nightshade. I don't know if that's something you'd want to be stuck with.

McCaskill: Oh, it's fun, I love it!

Thirty-five Years of Student Assistants

Lage: You must have met so many people through your work.

McCaskill: Oh, I have! I've corresponded with literally hundreds of farm advisors, and we've become pen-pals. Some of these men--I say men because only in recent years have there been women farm advisors; we're all happy to see that, of course. I see more and more women at the weed meetings. But anyway, we've corresponded, some of us, for years before we actually meet. I have become good friends with many of these people too, as well as with past students.

Lage: Any particular student you want to mention that may have gone to glory in some field, or who was particularly important?

McCaskill: I always like to think they have all gone on to glory in some way, in their own way. Mostly, I hope that they're out there somewhere enjoying life. There are some, oh, I often think of Charlie Lamoureux, who's a professor of botany at the University of Hawaii. At the same time--back in the fifties--there was Lalit Srivastava, who is a professor and dean at Simon Fraser University in Vancouver. Again, in the fifties, there was Engracia Arguelles Rasa, who is a professor and dean in the Philippines. I keep in touch with many of them. What I enjoy is visiting them when I travel about.

Lage: And you do travel a lot.

McCaskill: Quite a bit, yes. It's always the greatest pleasure to look them up. I went to some meetings at the Missouri Botanic Garden last fall and stayed with a gal named Pleasant, of all things. Pleasant [Gill White] and her husband live in St. Louis, and I stayed with her for several days when I was there. A thoroughly enjoyable character. I had visited the Whites many years earlier when they lived in England.

Just for my amazement and use, I made a list of the students that I've had helping me, either for pay as work-study or for units as interns, and it's getting close to two hundred in thirty-five years. Some helped for all four years, and some for just a few months, but it adds up. I wish I could tell all about every one of them. They have brightened my life tremendously, and many of them will never be forgotten.

Professor Katherine Esau

Lage: That's amazing. How about professors? Since this is a series about women in botany, I was hoping you might talk a little bit about Katherine Esau and any other woman botanists that you have come into close contact with.

McCaskill: Yes. When I first arrived on the job there were so few women in the entire department. There was a secretary. Now there's quite a staff of office people, but there was a woman secretary, a woman dish washer, Dr. Katherine Esau, and me. I hope I haven't forgotten someone.

And at that time, Dr. Esau has reminded me, there were only two women professors on campus. The other was in the English Department. So Dr. Esau, I'm happy to say, I've become well

- McCaskill: acquainted with and I respect her highly as does everyone. She is an internationally known plant anatomist and was there on the staff when I arrived. In addition to teaching plant anatomy, she had to teach plant taxonomy--there was no one else to do it early on--and that's what caused her to collect plants. These early pressings of hers are still in our herbarium, of course.
- Lage: Did she seem to suffer under any particular disadvantage for being one of the two women on campus and the only one in the botany department?
- McCaskill: No, I don't think she did. She was so extremely talented and well versed in her field that I don't believe she did. I just want to tell you she's ninety years old now, and on April third I was very fortunate to be one of the people to help celebrate this occasion.
- Lage: Oh, how nice. In Santa Barbara?
- McCaskill: Yes. We were able to see her, to talk with her, to go to her condominium, to hear of her latest activities, to see that she's still as energetic and into her field as ever. She drives herself from Santa Barbara to the Goleta campus. She still researches with Dr. Vernon Chesdle and still publishes. She learned the computer a few years back. She's an inspiration to us all.
- Lage: You mentioned to me on the phone that she seemed to have mellowed some. I think this was before you went down to the party.
- McCaskill: Yes. When you say mellowed, that would give the feeling that maybe she was not so mellow before. She had beautiful carriage, for one thing, she stood so erectly, and always in her white lab coat, her hair always so neat; everything about her was perfection. She was a dedicated researcher. That was her main interest. She was serious about it, and some people felt she was unapproachable, but not true.

I mentioned Lalit, one of her students in plant anatomy. One year Lalit needed to go up to Placerville to the Institute of Forest Genetics and collect certain conifers for his studies, and Dr. Esau was going to go too. There was a guest cottage for visitors up there, and there was also another facility where I had been. When great groups of young folks went up, we would just throw our sleeping bags into this room, but Dr. Esau was asked to use the guest cottage, and she asked me if I would go along. It was interesting; she said that she would feel comfortable if another woman went. I said, "Great. I'll go along, and I'll collect plants for the herbarium from the institute grounds."

McCaskill: It was there—I hope she doesn't mind me telling this—but it gave me great insight into her character. Being a cat lover, this was special to me. She talked about the time she and her family had to flee Russia at the end of World War I. The German army had occupied the Ukraine, but were not entirely unwelcome as they saved them from occupation by the Bolsheviks. When the war ended the Germans helped them escape to Berlin. So she and her family were given very short warning. One day they were advised to leave, and they left hurriedly with just a few possessions in a wagon carrying the injured and other refugees. She said she remembered looking back and seeing her cat, her pet, sitting in the window. As she told me the story that evening, a tear ran down her cheek.

I thought, "All right, you're okay in my book." She's always been tops with me, but that confirmed it. She told me not long ago that her heart still ached for that cat.

Assisting Weed Control Scientists Bill Harvey and Alden Crafts

Lage: I want to follow up on something you said casually to me. You mentioned that you made house calls, sometimes. Particularly in weed identification. Do you want to tell me how that happened?

McCaskill: Sure, that would be fun. In the early days, occasionally, I've made house calls locally when, for some reason or other, the owner couldn't bring specimens to me. You could call the longer trips house calls too, I suppose. When I arrived in Davis, the entire extension service in our department was Bill Harvey, quite a character. I'd so much like to tell you all the fun times we had. But Bill spent much of his time driving around the state helping farm advisors and their clients, of course, the people in their counties. Sometimes when there was suspected livestock poisoning, either sick animals or fatalities, Bill would say, "Hey, June, got next Thursday? Come along and we'll go check it out," and off we'd drive. We had good times because he is so amusing, and because of his keen humor, a much-sought-after speaker, I should add.

Bill and I were reminiscing the other day about these jaunts we used to make, and he brought up the subject of Halogeton, a toxic member of the beet family. It had caused livestock losses in the Great Basin area and the western U.S. That was, oh, a few decades ago. Then it was found in Elko County, Nevada and was making the headlines. Perhaps you remember that thousands of sheep were dying because of this one toxic weed. Because of the publicity it got, people started

McCaskill: imagining it everywhere. We remember being called over to Marin County to see if it was over there, and it wasn't. We didn't really think it should be, but you have to check all these things out and make certain that they aren't going to become noxious weeds in California. It was in Lassen County and has been picked up in a couple of southern California counties since that time, but it was eradicated and not allowed to become a serious threat.

Lage: Does Extension send out alerts when something like this comes up, to have farmers be looking for it so it can be eradicated?

McCaskill: I think the botanists over in the State Department of Food and Agriculture in Sacramento do. Their job is to monitor the spread of weeds throughout California, so they would be doing just what you asked, but we don't, no.

Lage: Are there any other herbaria that have the specialty that yours has, on weeds, in California?

McCaskill: Yes, the S.D.F.A. in Sacramento that I just mentioned maintains a herbarium with emphasis totally on weeds of California.

Lage: Might you be called from southern California?

McCaskill: Occasionally we are. The thing is that the herbaria throughout the UC system have talented folks on their staffs, so ordinarily help can be found locally.

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Lage: Do you get into at all California native weeds? I always hear about how the landscape has changed so dramatically with all the European weeds coming in.

McCaskill: Yes. I do identifications of the native plants. I'm there to identify anything and everything as best I can, and a large percentage of them are native plants. And yes, there are native weeds, but very few compared to the ones introduced from other countries.

Lage: You were going to tell me about the use of the airplane in some of these trips.

McCaskill: Oh, that was just special to me because I love everything that goes up. Not often, because it's expensive, but occasionally I would get to go with the extension men or John Tucker on a small plane to check out possible new species or potentially dangerous species.

Lage: So that wasn't uncommon to use the plane.

McCaskill: Not common either, but a nice treat when it did happen.

Lage: Could you report something about your exploration of the rice country for weeds?

McCaskill: Yes. I remember it was one of the things I did early on. I would go with Bill Harvey on several expeditions, and oftentimes we'd go up to the rice fields in Butte and Glenn Counties. On this particular day that I remember best, John Tucker, the director of the herbarium, went along too. Bill had found what he was quite certain was a new species for California, a new rice weed, so off we went to Biggs Rice Station in Butte County.

It sticks out in my mind not only because of the new species, but because of the leeches. I was a city girl; Davis was my first away-from-city experience, and then to do this; it was a memorable thing. Not of great importance, but one of those things I'll long remember.

Then Bill found other range extensions of weeds that we would check out and publish small articles on. The weed at Biggs at that time was Monochoria, then later we found duck salad up in that same rice country in Glenn County.

Lage: Duck salad?

McCaskill: Duck salad is the common name for Heteranthera limosa in the Pickerel Weed family, in the same family with Monochoria, incidentally.

Lage: Is that something the ducks like to eat?

McCaskill: I imagine so. It's a very pretty little thing, but it wreaks havoc with the rice plants. The young plants compete with rice early in the growing season and reduce crop yields.

Lage: You mentioned Alden Crafts.

McCaskill: Alden, I think, was the main person responsible for turning weed control studies into an accepted science. His own research centered around the translocation of herbicides in plants. Alden was also our chairman of the Department of Botany for a period of years.

Botany Department Chairmen

McCaskill: I've served under seven different chairmen, all of them good people.

Lage: Do you want to just go over their names and what their specialty was?

McCaskill: Surely, we can do that. When I arrived in nineteen fifty-three, I was interviewed and hired by Dr. Vernon Cheadle; we've mentioned that. Vernon is now in Santa Barbara. He went on to become chancellor at UC Santa Barbara in nineteen sixty-two. Next was Alden Crafts, who served, I think, until nineteen sixty-three. Then we had Dr. Ernest Gifford, a plant morphologist. He served two periods of time. In between Dr. Gifford's two sessions was Dr. Ralph Stocking, a physiologist. Then Dr. Kenneth Wells; he is a plant mycologist. Next we had Dr. Michael Barbour, a plant ecologist. And presently Terry Murphy. Dr. Murphy is a physiologist. So we've had them from many specialties in botany.

Lage: Yes. Would any of these people as chairman of the department affect the course of the herbarium, or was that pretty much a world of its own? Would they affect policy changes, or finances?

McCaskill: Not too much. Well, to a degree. I was always responsible to the director of the herbarium; either to John Tucker or to Grady Webster. But, of course, the chairman figured into the budgetary decisions for all facilities.

Lage: Would they affect the area you collected in? Would having a weed man as chairman of the department make you more eager to collect weeds, or anything that simple?

McCaskill: No, I think not, no. They weren't all equally concerned with the herbarium. However, their research interests didn't greatly affect our collecting activities.

Lage: Any other points?

McCaskill: I've seen, I just want to say, everything from soup to nuts. Almost literally, soup to nuts have come through my door. I was just remembering we've had hay samples by the hundreds. People will come in and plop down an entire bale of hay.

Lage: Wanting you to identify it?

McCaskill: Wanting me to identify what's inside. We'd bust it open and clutter up the table with bits and pieces of the alfalfa or the grass, depending on what kind it was. Then, in recent years, you have cubes of hay; they bring those in, and that's very hard because it's all smushed up and then compressed back into cubes and you're lucky to find anything recognizable. We're always looking for fiddleneck and common groundsel because those are very often found in first-cut hay. These are deadly poisonous, particularly to horses; many losses have occurred due to liver poisoning caused by pyrrolizidine alkaloids.

McCaskill: We've had rumen from large animals, cattle. We've had hair balls from various sorts of animals, and we are able to identify plants forming the hair balls. I've saved an assortment of these little treasures as demonstrations to show people what we do and can do.

Lage: That's a good way to wind it up, soup to nuts.

VI EXTRACURRICULAR BOTANICAL EXPERIENCES

[Interview 3: August 8, 1988]##

A Summer Job at Caltech's Phytotron, 1951

Lage: Today we are going to talk about your extracurricular activities in botany. I thought we'd start with the earliest one, which was the summer at Caltech.

McCaskill: Okay, fine. That was a memorable summer. I had a summer at home in Pasadena between my studies at Mills College. I had been associated with Caltech and was in the neighborhood. My father had long known Dr. James Bonner in the Botany Department there. He and Dad shared their interest in camellias.

I knocked on their doors and asked if there was a summer job, and lo and behold there was. I was so lucky. At the time I didn't fully realize this. I didn't know much at all about plant physiology, but they needed some work done which involved watering plants, pipetting some solutions--

Lage: --pipetting?

McCaskill: Yes. You draw liquid up in a glass tube. I did a lot of pipetting solutions, checking the plants in the phytotron, which we'll get to later, and cutting up oat seedlings that were part of the research going on there.

Lage: This was 1951?

McCaskill: --1951, and looking back on this I realize that I was there at a very special time when there was all sorts of early work going on in research of plant growth regulators. The phytotron had just been built. In 1949 it had been completed, and it was formally called the Earhart Plant Research Laboratory.

McCaskill: I was in the main biology building--the Kerckhoff labs--a good part of the time, with Dr. Bonner and other plant physiologists--James Liverman and Anton Lang--I worked for all of them.

Across the street in the phytotron I worked with Dr. Fritz Went. All these physiologists were involved with plant growth regulators. It was also the time of early isolation of DNA structure and its relationships to flowering.

Most of these men's research revolved around the flowering of plants, and it was a time when they were doing research on the effects of day length on plants and vernalization, which would have to do with the cold temperatures required to make plants flower.

This phytotron was a multi-million dollar building that was very, very special because it was the first building in the world that had controlled temperatures and could produce any climates that you would want. They could simulate fog, rains, winds, storms (don't know about snow), cold and warmth, of course, and light/dark--it was revolutionary.

Lage: Did it have different sections--

McCaskill: Yes, there were wind rooms, rain rooms, gas rooms, among others.

Lage: --different climates going on at the same time?

McCaskill: Yes. All the climatic factors were simultaneously and independently controlled.

Dr. Went, who had started his experiments in the phytotron when it opened in 1949, was the first to use extensively fluorescent mercury vapor tubes for the growing of plants. It was known that plants could grow under artificial light, but it had never been done on such a large scale.

So there were thirteen air-conditioned labs equipped with these artificial lights. There were also six air-conditioned greenhouses in the same building in which natural daylight was the light source.

What was fascinating was the fact that we had to change our clothes when we went in there. They were keeping it pest and disease-free as far as they possibly could, so all plants that went into the phytotron had to be fumigated. All the soil, the pots, containers had to be sterilized. Anything that went in there had to be de-bugged, shall we say? That included the people. When we went into the entrance of this building--when I reported to work--we were then faced with the choice of two wash rooms.

McCaskill: I would go into the ladies' room and remove my outer clothing, put on special clothes and shoes that I kept in a locker there.

Then our lunches were closely monitored. You couldn't take fresh lettuce and fruit and things because all of these could contain contaminants.

Unfortunately for us, because of these strict regulations they couldn't allow many visitors. They had to keep that down. If a visitor did come and was allowed in, they had to be covered with a long plastic coat and huge cloth boots over their own shoes.

Lage: Did they do any fumigating of people, like spraying with DDT?

McCaskill: [laughs] No, nothing like that. They weren't that severe.

I was just super lucky to be there at that time in history and be there every day when some would-be visitors were not allowed in at all. I was young, and I didn't fully understand what I was into, but I thoroughly enjoyed it, enjoyed meeting Dr. Went and his daughter who was there that summer, helping.

I was remembering that, although a renowned plant physiologist, Dr. Went's first love was ecology. Of course, all this tied in; the temperature's effect on plants, the effect of the elements on plants, is definitely a part of the ecology. Another thing he was interested in was belly plants. Belly plants are the little tiny ones that grow on the desert, and you have to get down flat on your you-know-what to see them. [laughs] He since has gone to Nevada, and is still active as far as I know, and there he would be, of course, in the heart of his desert.

Lage: So they were focused on the whole plant, the organism, or were they also doing cellular studies?

McCaskill: They focused on the whole plant to a degree, of course, but more specifically they were concerned with the growth hormones, the growth regulators, one of which was auxins. I remember sitting with Dr. Lang in a dark room slicing up hundreds of little coleoptiles. They are the first leaf on an oat seedling. He was studying auxins, which is a type of plant growth regulator, and these oat coleoptiles produced those auxins. So I was helping him do the simpler parts of his research.

Lage: Do you know if significant research came out of this phytotron?

McCaskill: Oh yes, very definitely. Results of early research on plant growth regulators came out of this facility. It's gone now. The last remnants of the building were removed in the early 1980s.

Lage: So this is a different sort of work from the herbarium?

McCaskill: Oh yes, it was totally different for me. It was different from my focus on taxonomy at Mills, and taxonomy, of course, is my job now. But it was an interesting summer.

With the University Research Expeditions Program
in Greece, 1985

Lage: You were going to tell us about your involvement with the UREP program. Please tell us what it is.

McCaskill: Before I do that I'd like to explain that I wasn't an avid plant collector in the sense that many people before me have been, and many of the young people are now. Early on at Davis I had much more opportunity to get out in the field, particularly with the Cooperative Extension people.

But as the years went on and my job grew but the staff didn't, I became more involved with paperwork and other things in the herbarium and didn't get out enough and go on extensive field trips as much as I would have liked to. However, in the summer of 1985 I was asked to be the botanist on a UREP expedition.

UREP is the University Research Expedition Program. It is connected with the University of California at Berkeley. In addition to providing funding for research, it also provides public involvement and understanding of the University's research role. The project leader and an assistant would go with a team of people, and the people that make up the team are from all walks of life. Many are school teachers that have the summer to explore something different. We had a lawyer, a neurologist--people representing all walks of life, as I said before. They want to go enough to contribute their own money and help pay for the research of the leader--the senior researcher.

Lage: Are they also involved in actual research work, the people who sign up on these trips?

McCaskill: Yes, they do whatever is required of them. They can look over the listings put out by the UREP people and make a choice. In this case, it was a trip led by a cultural geographer named Dr. Louis Grivetti. He's from the Nutrition Department at UC Davis. Our effort was a combined one: botanical-geographical-nutritional. He asked me to come along and do the botanical part of it.

McCaskill: He had hoped to make a study of cultural food habits in rural Greece, and he wanted to interview older people on the issues of their diet and nutrition. He especially was interested in the role of edible wild plants that are used now and how they helped sustain the diet of the Greek people during the famine in the 1940s during the Nazi occupation.

This was his focus as a nutritional and cultural geographer. My job was, with the help of the team, to collect edible and otherwise useful plants. As it turned out, we collected on archaeological sites more than anywhere else.

Lou and I and our team of ten people (ten the first session and ten the second) set out to interview these people and took a translator with us. It was in the heat of the summer, and it was fascinating. We would find the locals sitting in the shade, often of outdoor cafes, talking up a blue storm just as people do here after their morning's work is done.

Our translator would approach them, and they were very interested in what we were doing. They would scurry off to their homes and pull out of their storage areas and their garages bits and pieces of dried plants and point to the area up in the hills and valleys where they had collected them. There was thyme and rosemary and the usual things--herbs that we would expect--but it seems that it was the wrong time of year for us to really do a thorough job.

Lage: You couldn't collect the things they talked about at this time of year?

McCaskill: True. Bulbs wouldn't be growing and visible; they would be dormant under the soil. Many plants would not be flowering--the spring would have been far better for that project, but summer was the time we were able to go.

Then we turned our efforts to collecting on the archaeological sites. We started in Athens, went to the Peloponnesus Peninsula, and collected all along the eastern part of that peninsula starting at Troezen and down through the area adjacent to the Saronic Gulf. It was 135 miles that we canvassed--we didn't do as much walking as I thought we were going to. We did a good deal, however, and it seemed like that some days.

Lage: It seemed like 135 miles?

McCaskill: Yes, some times it seemed like we put them all in on the same day. But we had back-up cars, of course, carrying the plant presses. We travelled between Troezen and Athens. It was the route of Theseus, the mythological character, that we were

McCaskill: walking in the footsteps of. So we passed through and collected on the sites of Troezen, Epidaurus, Corinth, Isthmia, Eleusis, and then back to Athens.

When we were on the Peloponnesus Peninsula we stayed in Nauplia for a week, and this allowed us to have day trips to Tiryns, Argos, Mycenae, and other major archaeological sites, which were totally mind-boggling to me. It's an odd expression but that's what they were; I was just overwhelmed.

Lage: What was the idea of collecting on these sites? Were you trying to get some idea of what grew in the past?

McCaskill: Yes. It was partially the study of the succession of plant growth. That summer we collected many weed species. Most of them were familiar to me because they were weeds that had been introduced into California from Europe. So I was able to recognize probably 80 percent of them, at least to the level of genus. It would be a study of plant succession, what plants were there after the digs.

What we were doing was putting together checklists of the plants which existed on each site. Those will be sent back to the Goulandris Natural History Museum in Kifissia, in the northern part of Athens. We've had good relations with the director and staff there, and we will be returning half of the plant collection to them. We're very indebted to them; they let us use their facilities and were supportive of our project.

Lage: Sounds like you made a good switch of direction when the original one didn't work so well.

McCaskil: Yes. And Dr. Grivetti is over there now. His wife is Greek, and they're on her native island of Chios. He has a couple of his graduate students in Greece doing their research, and he's meeting with them. Some of their research involves interviewing people, but I think on a smaller scale than we attempted.

Lage: Did you tape record the interviews?

McCaskill: No, I wish we had. We learned what to do next time.

Lage: How did the crew work out? I've always been curious about how these UREP programs work out.

McCaskill: Ours did. They knew before we left that we would be on the road at seven, we would close down operations at three, at least for the crew, and they would have the rest of the afternoon for swimming--there was often that opportunity--and doing whatever they liked. Lou and I and the translator--Eleni Bey was her

McCaskill: name--spent much more of the day changing blotters in the plant presses, recording collection site data, and doing all these things that plant collectors must do in between expeditions. And of course Lou had all the expenses record-keeping to tend to. That was one huge responsibility for him.

Lage: Was it hard to train your crew on how to collect specimens?

McCaskill: No, it wasn't. They were all wanting to do this or they wouldn't have signed up in the first place. It got kind of funny though. Towards the end of a day collecting, they would say, "If I see one more caper. . . ." Then they'd laugh. They didn't mean it at all, but you do start noticing that--well, it figures you would see the same weeds on several different sites. But they bravely pressed on!

They certainly did a grand job. We figure that we collected, pressed, and identified approximately 2,500 specimens. Most of them were herbaceous species.

Lage: Have you followed through with the project at all, or was that a one-time thing for you?

McCaskill: I still work on it as I can between my other duties in the herbarium, so we're still processing it. What Dr. Grivetti is doing is making mineral analyses of the plants by first reducing small amounts of each to ash. We collected enough material so that he could do this after they're identified and a voucher specimen of each is stored in our herbarium. He can then take the excess material that was collected and make nutritional analyses for his studies.

Lage: Sounds like another interesting sidelight of your career. Any other remarks on the Greek experience?

McCaskill: Just one. People ask me about it, and I say I came home tired but exhilarated at the same time. I don't think I'd ever worked that hard in my life, and I'd lost weight. But I would leave again tomorrow. [laughs] I would do it all over again, gladly!

Lage: How long a trip was this?

McCaskill: It was pretty much the summer for Lou and me because we went ahead of the group and made a dry run. Then we had two sessions with time in between. At the end of the trip I was able to go to Crete for a week and also on a short cruise on the Mediterranean seeing the Greek Isles--quite a contrast to our expedition where we had more spartan, but perfectly adequate accommodations.

McCaskill: The group was wonderful and Lou was--is--a fantastic man. After the end of the day when we were rested a bit and ready for dinner we'd eat in tavernas, those cafes that are often in the street. The cars sort of go through you instead of around you. We'd eat as a group every day, all three meals. At mealtime he would teach us so many things. Not as a stiff, dry, boring professor but just as a wonderful human being who knows so very much about that part of the world. We often sat until eleven or midnight, and did lots of laughing together, I must add. Then off we'd go again early the next morning.

Lage: Did his Greek wife come along?

McCaskill: She didn't. The original intent was for her to come, but it didn't work out that way so Louis had to hire a young college student as a translator. Eleni's the one that actually got me through much of the hard work. Sometimes we'd find ourselves still pressing those plants on the floor where we were staying into the night, into the wee hours. She'd say, "Just one more, June; we can do it!" [laughs]

Lage: Sounds like a great spirit of teamwork.

McCaskill: It was. And we've kept in touch with many of those people. I'm hoping for a reunion some day. We haven't gotten around to that yet.

I nearly forgot to tell you . . . shortly after the plans for the trip jelled there was a Palestinian hijacking of a TWA plane in which an American was killed at the Athens airport. But in spite of this, not one of our team backed out. When we flew into Athens there was a huge banner reading, "Athens Airport is Safe." When we left in August security was tighter than a drum.

Friends of the Davis Arboretum

Founding and Fostering the Friends

Lage: We want to turn now to talking about the arboretum at Davis. You mentioned you first became involved in 1971, although it was originally founded in the thirties.

McCaskill: Yes. Officially in 1936, I believe, when plantings were made by students on Aggie Labor Day. In the early forties, also long before my involvement, there was a planting of a redwood grove, coast redwoods, initiated by Dr. Elliot Weier, who is a professor emeritus of our botany department and still an ardent supporter of the arboretum.

McCaskill: In 1971 there was a cutback of many things on our campus-- in our UC system, I should say--and on our campus it affected me directly. I lost our plant moulder, and the arboretum lost its two top staff people--Roman Gankin and Dick Hildreth, two outstanding plantsmen.

Lage: It left the arboretum without leadership?

McCaskill: Well, to a degree. They served as superintendents, but Grady Webster continued as director at that time. He is my boss now. ("Boss" sounds funny to me because Grady and John both are such great guys and working with them is a pleasure.) My first boss at UC Davis, John Tucker, was the arboretum director for twelve years after Grady served.

Back to 1971--with this cut in state funding, something had to be done. There had been a group called the Pioneers, a community support group. However, those people, Dean Knowles Ryerson and a few others, had either moved away--Ryerson had returned to Berkeley--or in some cases had passed on. The group had dissolved, so it was felt that a new one should be started.

##

McCaskill: So a new community support group was founded, and in the spring of 1971 a group of us, concerned members of the community, held meetings. Our first official meeting was in June. According to my records as membership chair, several life memberships were given in that year. So we were on our way. We had a core of very dedicated people and slowly, but surely, our membership grew through those early years.

Lage: What is the group called?

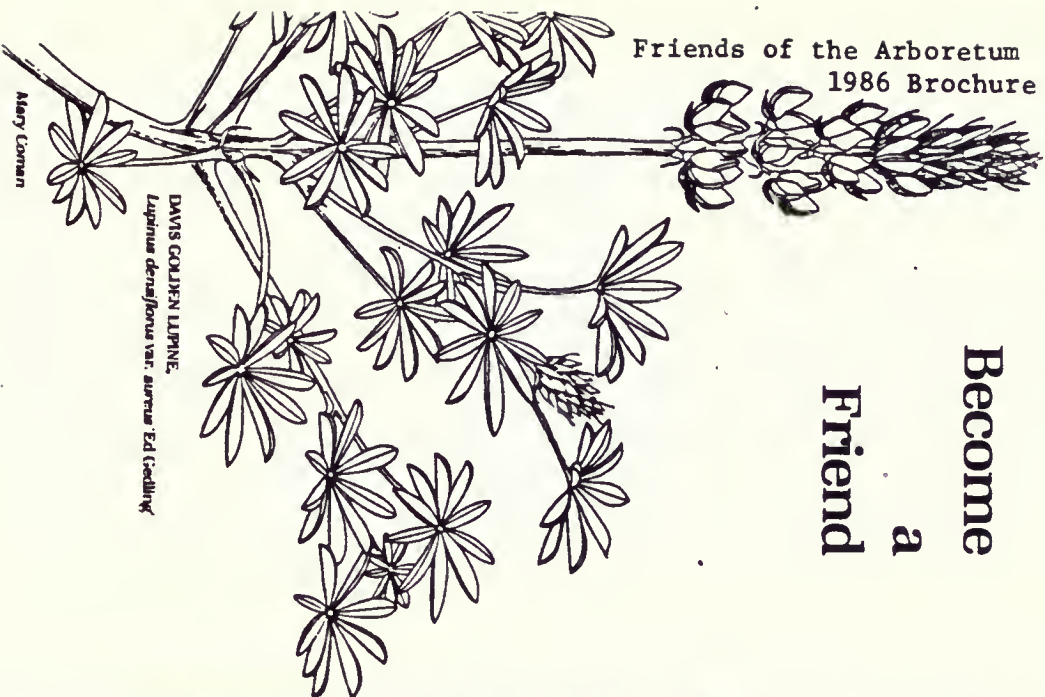
McCaskill: Friends of the Davis Arboretum. It is composed of local people primarily, as you would guess, but also a few members from afar. The membership does continue to grow and gather momentum. We have a mailing drive every September; we have an annual membership luncheon; we have wonderful support from the local newspapers giving us good coverage on our events--our field trips, our walks through the arboretum on Sunday afternoons, our education program. All of this helps us to gather more members as the years go by.

Lage: Does your membership reach beyond the University community?

McCaskill: Yes it does, out into the business community, through California, across the U.S., and as far as Canada; we do have some foreign members.

Friends of the Arboretum 1986 Brochure

Become a Friend



DAVIS GOLDEN LUPINE,
Lupinus densiflorus var. *aureus* Ed. (cedling)

Mary Conner

❖ The FRIENDS OF THE DAVIS ARBORETUM is a service organization dedicated to programs and development of the Arboretum of the University of California. Davis Your help is needed and you can assist in a number of ways to keep the Arboretum the magnificent place that it is.

❖ Friends of the Davis Arboretum sponsor the Plant Fair, the Jovian Program, free public tours, field trips, and a lecture series.

❖ The Plant Fair held annually in early fall offers for sale an array of native and exotic plants, many drought-tolerant, and often not available elsewhere. The Propagators, a group of dedicated Friends, work throughout the year preparing about 8,000 potted plants for the sale.

❖ The Docent Corps leads regular Sunday Arboretum tours, tours for children's groups, garden clubs, and for visiting naturalists. The Jovian Training Program, a year-long course, instructs interested Friends in basic knowledge of Arboretum plants and techniques of tour leadership.

❖ Groups of school children visit the Arboretum each spring for an outdoor learning experience. They are instructed by interested Docents and University students.

THE ARBORETUM

❖ The University Arboretum is located on the Davis campus of the University of California. It occupies about 100 acres along the banks of ancient Putah Creek and is close to the middle of the Great Central Valley of California. The prevailing climate closely resembles that of the Mediterranean region, with cool wet winters and hot, dry summers in which a range of adapted plants will flourish. The extensive collections well illustrate the variety and brilliance of trees, shrubs, and perennial adapted to grow in such conditions.

HISTORY

❖ On February 29, 1936, the University Arboretum began with a planting day on the north channel of Putah Creek. A new south channel (now the Putah Creek Campus Reserve) was dug by the citizens of Davis to by-pass flood waters in the late 1800s. Previous to that time each spring a rampaging Putah Creek would overflow its banks to build up a rich alluvial soil. It was lined with cottonwood trees and valley oaks which were draped with long grape vines. This thicket was the home of the California grizzly bear and spring floods enticed thousands of waterfowl.

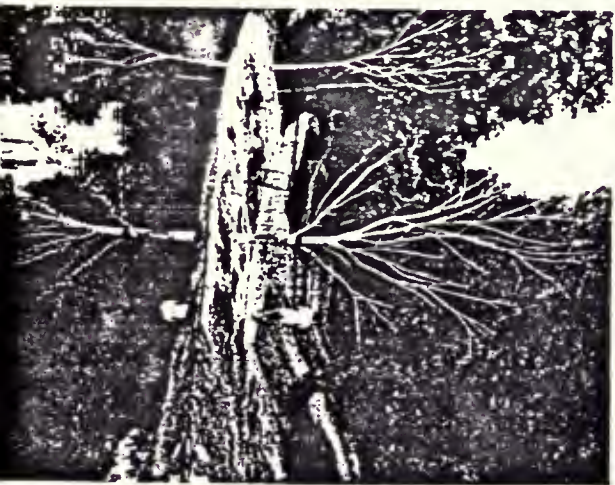
❖ Putah Creek was within the northernmost limit of the Spanish domain. (One of the living valley oaks in the Foothill Native Section is thought to mark a corner of a Mexican land grant.)

❖ Today the north fork of Putah Creek is fed locally by winter rains and from campus wells in the summer. The ancient oaks and poplars along its banks could not long survive without the still waters of today's creek. A nutritious flux of small algae support carp, catfish, and turtles. There is an abundance of ducks and geese, as well as species of swallows, herons, and gulls.

COLLECTIONS AND GARDENS

❖ The Shields Oak Grove stretches to the west. It occupies about 15 acres and has 70 species of oaks, both trees and shrubs from many countries in the northern hemisphere. Some require water, others don't. Scrubby oaks come from the deserts of California; our valley oaks with the Persian oak as the most magnificent tree.

❖ CALIFORNIA NATIVES are prominent. They occur in most sections but are concentrated in the Mary Watts Brown Garden, the Foothill and the Desert sections. The lupines, *Ceanothus*, redbuds, and poppies are most brilliant. There are also excellent examples of fremontia, bladderpod, toyon, bush anemone and *Rhus*.



MEDITERRANEAN CLIMATE

Plants adapted to the MEDITERRANEAN-TYPE CLIMATES of Europe, Africa, and Australia are well represented. They are grouped in the Mediterranean and Exotic sections and the Eucalyptus and Acacia groves. Many species of *Ilex*, *Croton*, *Cistus*, *Grevillea*, *Yucca*, *Ruscus*, *Larix*, and *Casuarina* are found in the first two sections.

Some 70 species of *Eucalyptus* range from large shrubs to the magnificent *Eucalyptus camaldulensis* which equals our oaks in grandeur.

There are 60 different species in the Acacia Section, from Africa and the Americas (with thorn and Australia (thornless). Their flowers, a mass of yellow stamens, literally immerse visitors in early spring. Species differ notably in growth form, leaf and pod shape.



GYMNOSPERMS

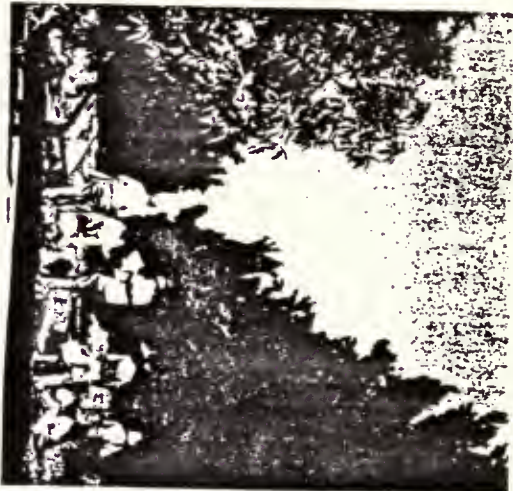
While gymnosperms, mostly conifers, are widely distributed, they are grouped in three sections: the Redwood Grove, the Exotic Conifer Section and Weier Alley.

The Redwood Grove, the largest grove outside of the coastal fog belt, has demonstrated that redwoods (*Sequoia sempervirens*) with some summer water, can do well in the Central Valley.

Representatives of exotic conifers include pines, junipers, cypresses, from the eastern United States and many northern hemisphere exotics. *Callitris* is from Australia, *Arbutus* from Argentina. *Ephedra* gymnosperm but not conifer, come from cool, dry regions.

Weier Alley is two rows of California conifers: pines, firs, cypresses. The large Torrey pines at the east end are the most towering trees in this part of the Arboretum.

The west Arboretum entrance is flanked by the Carolee Shields and the Ruth Hickson Storer gardens. The former surrounds the gazebo and is planted with white-blooming shrubs, vines and perennials. The Storer garden features drought-tolerant shrubs and perennials requiring minimum upkeep. It has blossoms of many hues and foliage of many shades of green. It is colorful every season.



MEMBERSHIP

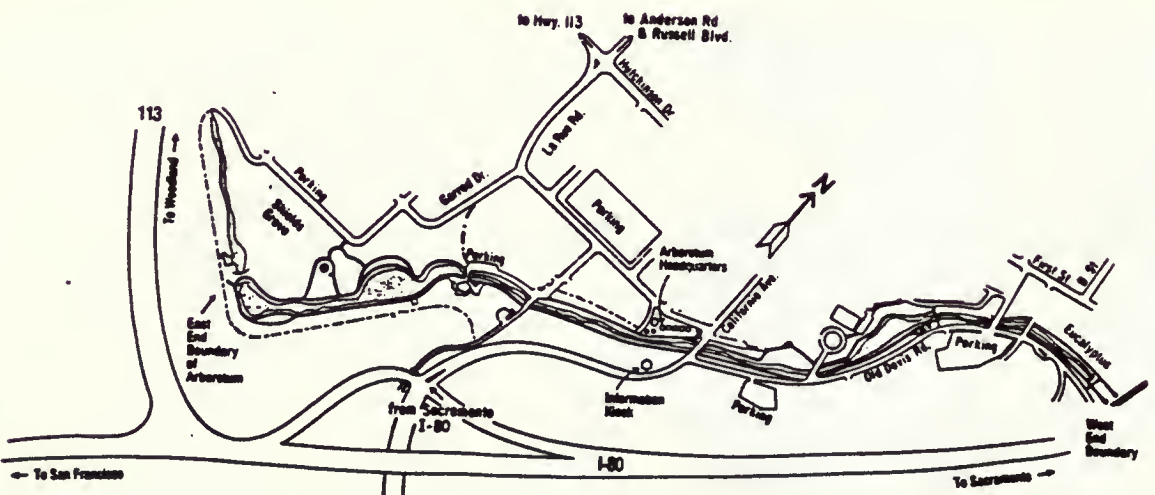
You are invited to become a member of the Friends of the Davis Arboretum. Several categories of membership are available. Members receive the newsletter and all announcements of lectures, tours, and the plant sale.

If you would like to support the Arboretum program, please return the enclosed form marking your choice of membership with your check to the address on the front cover.

Brochures describing the Arboretum and various gardens are available for sale at the Arboretum Headquarters in TB-32 and at the annual plant sale.

The Friends of the Davis Arboretum is a whole access and equal opportunity organization.

Please join us . . .



McCaskill: One year--this was a fun thing--we canvassed the whole town, and we hope to do that again, incidently. It's quite an operation to do that.

Lage: How did you do that?

McCaskill: You get volunteers. We have an active group of volunteers--there are the propagators, waterers, docents, librarians, people that want to help address and stuff envelopes, and that's what they would do for me when we have these membership drives. That year I tore some pages from the Davis phone book and went to see these people that had indicated they would like to help and said, "Here you go, address these pages."

Betty Quick and her husband are two of our most dedicated volunteers. Betty reminds me that that's how we met. I was on her doorstep with part of the Davis phone book in hand.

Lage: You sent mailings when you say you canvassed the community.

McCaskill: Yes, we mailed out thousands of membership packets.

Lage: What kind of response did you get from those?

McCaskill: Enough to pay for the paper, the postage, and all the financial involvement we had there, plus gaining enough members to make it worthwhile. This coming year, in 1989, we're going to do that again after we work out the logistics. We know there are many, many more people out there that would happily become involved with the Friends if they had the opportunity presented to them.

Lage: How about your renewal rate? Is that pretty good--memberships that renew year after year?

McCaskill: Oh yes, renewals are made unless they just let them fall through the slats and are temporarily forgotten. We'll pick them up again in a year or two, though.

Lage: Did all the educational programs come along with this friends group or had they existed before?

McCaskill: I'm not certain about that. Certainly, the organized ones came along with this group. We have a corps of docents that lead walks through the arboretum, some designed for school children and others for the community as a whole. Some of them do other jobs; some volunteers are seed-sorters, some mappers, whatever they enjoy doing. I mentioned librarians and volunteers at the Plant Faire. Every year we have a Plant Faire that's our biggest fund-raising event. The propagators that I mentioned

McCaskill: are the ones that make this sale such a success. It grows every year and it's become a looked-forward-to event in the community.

Lage: Does it focus just on trees?

McCaskill: No, ground covers, herbaceous plants, annuals, perennials, and some trees. They are propagated by volunteers through the year. I should mention that the majority of them are our native plants because in our arboretum, although we have an exotic section, the focus is on drought-tolerant plants, which would be natives.

Lage: So the arboretum also doesn't just focus on trees?

McCaskill: Right. I guess in some definitions an arboretum would be trees but ours has a wider scope.

Lage: Would it be properly called a botanical garden?

McCaskill: That would be fine, certainly.

Lage: And it's located on the campus?

McCaskill: Yes. That's something I should have mentioned early on. Many people think of an arboretum as a square block or something with a fence around it--an enclosed area. What we have is over 100 acres bordering both banks of the north channel of old Putah Creek that runs through campus. The rains normally keep it filled in the winter, and in the summer it's fed by the campus wells. Without this quiet water in that creek the ancient oak trees and the poplars along the banks would not be able to make it.

Lage: So it does need some irrigation?

McCaskill: Yes.

Lage: How about the coast redwoods?

McCaskill: They're doing fine with some summer watering.

Lage: It seems hot in Davis for redwoods.

McCaskill: Doesn't it, though? People can scarcely believe this, and yet it's a wonderful oasis. There are lunch tables down in the shaded areas; there's duff from off the trees underfoot; and they've planted associates of redwood trees in there also--plants that would normally be found with them in the wild. People make use of these picnic tables pretty much through the year.

Lage: It's an accessible area for students?

McCaskill: Yes--heavily used by students. There are bicycle paths, walking paths, benches to sit down on and enjoy the plants--just to sit and relax. Children adore it. It's a place where they can go with their school teachers or with their parents to see the ducks, other waterfowl, the turtles, all the plant life and the animal life. It's heavily used and admired.

Special Arboretum Gardens: The Ruth Risdon Storer Garden

McCaskill: We could talk about one of the special gardens, if you like.

Lage: Yes, please.

McCaskill: In the arboretum we have several special gardens. One of them is the Shields Oak Grove with the largest collection of Quercus species in western North America. We have many large collections of plants from Mediterranean climates--Eucalyptus and Acacia, both primarily from Australia. I should say Mediterranean-type climates such as you find also in Australia and parts of South America and Southwest Africa.

One very special one that comes to mind is the Storer Garden. This garden is the most popular one in the arboretum for all ages, I would say. It was supported both morally and financially by Ruth Risdon Storer. Dr. Ruth, as she was fondly called, was the wife of Dr. Tracy Storer. The two of them had gone to school in Berkeley. Tracy Storer was a zoology professor who left Berkeley and came to Davis. With him he brought his wife, Dr. Ruth Storer, who had acquired her M.D. here in Berkeley.

So the two of them arrived in town in 1923. She was recovering from a bout with tuberculosis. She did get better, and it wasn't long before people became aware that she had an M.D. and was such a caring person and they went to her with their children. She was a pediatrician, and she started the first baby clinics in the area. She founded them in both Yolo and Sacramento Counties. Actually, the first clinic was in Tracy's den. Tracy was a very serious, hard-working zoologist, and he'd come home and sometimes find babies and mothers in his den that she was helping through some crisis. They begged her to set up these clinics, which she did, and she remained in that career until she was eighty years old.

Meanwhile, she always had a beautiful garden at their own home. After she retired from the medical profession, she then put all her time and efforts into her plants and her garden and

McCaskill: the arboretum. The Storers were very generous to the arboretum, and one thing that they endowed was the garden that I mentioned that was named in her honor.

The interesting thing about this garden and what makes it so popular is that many of the plants in it are drought tolerant--some more than others, of course. There are native plants, also there are introduced exotics. It is a gathering of plants that can tolerate the Central Valley, which we're in the middle of, and that will give color all year long. You can visit that garden, figure out what you would want to plant at your own home and see color during every season. So this has been a great success. It's so important now since the water conservation has become vital.

Lage: It sounds as if it came about before all the concern and focus on water conservation, or was it started during the first drought in the 1970s?

McCaskill: I don't know the date actually, but it was begun in the late 1970s and dedicated while Dr. Ruth was still living.

Lage: So there was a general concern about drought-resistant plants?

McCaskill: Yes, I'm sure there was. The Davis community on the whole has always been tuned in to conservation practices.

Lage: Is it used for research at all, or is it more for public education?

McCaskill: That particular garden would be for public education, primarily, I would say. Although classes such as environmental design would certainly use it, too.

Lage: How about the arboretum in general?

McCaskill: The arboretum in general is used both for education of school children and interested adults and for research. Many departments on campus have used areas of it for research experiments of one kind or another. Yes, it's a valuable resource, and fortunately our new chancellor sees it that way also.

Organizing and Leading Arboretum Trips: Southern California, Canada, Hawaii, and the Mid-Atlantic States

Lage: That's nice to know. Now tell me about the trips. Shall we move into the trips you've been involved with?

McCaskill: Yes. The trips are another part of my involvement with the arboretum and one of the happiest parts of my life--I wish you [the reader] could see me grinning. But, really, when I think of the people that I've met and enjoyed traveling with, I feel so fortunate.

It happened this way. In 1982, Mary Major who worked with special events for Friends of the Arboretum for many years, felt we should have some fairly lengthy trips. We'd had and still continue to have day field trips up to the Stebbins Reserve, to Bear Valley, Table Mountain, the Sutter Buttes.

But Mary was a good one to think of how to raise funds for the arboretum, and this would be a fund-raising thing. People going on these longer trips would donate an extra amount to the arboretum. Arboreta throughout the country have trips as fund raisers.

So in the spring of 1982 we decided to go to Santa Barbara. We knew they have some wonderful gardens there, private gardens in addition to the Santa Barbara Botanic Garden and others open to the public.

My friend, Sue Armstrong, eagerly pitched in to help me. We got a plan, prepared a flyer, and off we went for four days to Santa Barbara. We took the train down, and we rented some cars and drove ourselves around and had a glorious time. We saw some beautiful private gardens. We were privileged to see those and appreciated the people of Santa Barbara opening them to us.

Lage: Did you arrange that through the Santa Barbara Botanic Gardens?

McCaskill: Yes, some I did, through the director there, who at that time was a woman, Dr. Katherine Muller. She gave me names of local garden clubs and people that I could contact. Mary knew I liked to travel, and she also knew that I was fond of Santa Barbara, that I enjoyed it and went through it often on my way home to Pasadena so, "June, why don't you put this trip together?" and I said, "Fine, I'll do that," and it was a success.

Then we were all saying, "What do we do next year?" and then this continued. People would ask, "June, why don't we go somewhere every year?" Well, fine, that's great. I will help with trips as long as people would like to go, but you know, the years do go ticking by. But I'm ready, willing and able at this point!

Lage: So you really organized all these trips.

McCaskill: Yes, a good many of them. For longer trips we work with travel bureaus. You have to figure out where gardens that we want to see are located. Next I write and phone people in those areas and arrange dates for the visits at the botanic gardens and other attractions needing reservations. Then you figure out the logistics with the travel people. They make the arrangements for transportation and accommodations, of course.

Lage: --and special tours usually?

McCaskill: Yes. We'll ask for a guided tour through each arboretum or botanic garden. We don't limit it to that. The group that goes with us--there are repeaters for many, many times, and then we draw in new people also--they are the sort of people that like other things too. We always have birders with us from whom we learn a great deal; I know I do. We go to art museums, natural history museums, historic homes, historic sites of all sorts, and they like this. It's a good mix with the plant part of it.

Lage: Tell us some of the places you've gone.

McCaskill: The next year we went on down to southern California, further down, and we went to the Huntington Gardens and nearby Rancho Santa Ana Botanic Garden, and the Arcadia Arboretum, where I mentioned my brother is still working. These places I had become familiar with as I grew up in Pasadena, so it was a natural and easy area for us to get around in. We did get up to Rancho Santa Ana to see the native plant garden. And on that trip we added a tour of the Gamble House, which is a wonderful piece of architecture built by the brothers Greene and Greene in west Pasadena.

Lage: Did you get to go through that?

McCaskill: Yes, we did. It was a special treat for me because we had visited it as children when the Gambles still lived there.

And at that time we went to art galleries too. We always have a few of those included. All of these things are optional, of course. These people are adults. They're well-travelled. Most of them, I would venture to say, are more well-travelled than I'll ever be. They've been on sabbaticals through their careers; many are retired professors. So I remind them early on, "This is your time and your money and everything's optional." If you would like to go to things we have scheduled, meet us at the cars or buses for whatever is going on that day. But they always show up. [laughs] It's a very rewarding part of my life.

After southern California we decided to branch out some. We went to Hawaii in 1984. We went to see the major botanic garden there on Kauai--the Pacific Tropical Botanic Garden--and also saw



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McCaskill: gardens on Oahu and Maui. All of these trips require a lot of planning. What causes them to be a success is the background work that we do. We have lots of help from grad students we've had at Davis who have gone on to a job in another part of the world. They are so helpful. They'll make contacts for us.

Lage: You'll contact the grad student in that particular area?

McCaskill: Yes.

Lage: And you get ideas, maybe not the usual tourist attractions.

McCaskill: Exactly. And often times they'll come with us, and they add so much to the trip because our group enjoys meeting them. They're just by and large delightful people that we enjoy going with to the gardens.

We also went to Canada one year. We flew up and sailed back home on the Rotterdam, which was fun. We travel many ways-- private cars, vans, buses, planes, trains, boats and mules. [laughs]

Lage: So Canada, Hawaii, southern California--

McCaskill: Yes. Then we had a trip to the mid-Atlantic states. I think that was one of the most memorable ones for me. I'd heard a good deal about the gardens on the East Coast but had not seen them. They are different. Of course, the climate's different, and they have to have many of their plants in huge glass houses. Several of these gardens that we saw in the Pennsylvania and Delaware Valley area were supported by the duPont trusts, where no money was spared. They had the most incredible displays in conservatories, as well as outside too.

Ones I remember so well would be the Longwood Gardens in Pennsylvania and then Winterthur in Delaware. We also went to the Brandywine Conservancy River Museum at Chadds Ford in Pennsylvania. All of these were clustered fairly close to one another. At Brandywine, in addition to the gardens, we saw the Wyeth paintings, and the Helga paintings before they went on tour. That was exciting.

Lage: When was that?

McCaskill: That was in the fall of 1986. There again, we combined plants with history. We were staying in Philadelphia so certainly we saw Independence Hall, the Liberty Bell Pavilion, went to the Bookbinder Restaurant, things like this. Then we worked our way down the coast as far as Williamsburg and Jamestown and along the way toured Annapolis. Outstanding gardens along the rest of the way were at Monticello and Oatlands.

- Lage: It sounds like you found a second career as a specialty tour guide.
- McCaskill: Yes. People have said that to me and I do enjoy it immensely. I'll keep going as long as we can.
- Lage: Has it been successful in raising funds for the arboretum?
- McCaskill: Yes. I was looking at our first flyer, and we were asking \$10 as a contribution to the arboretum for that trip, and now it's \$150 for any trip of considerable length--not the day trips, not the short outings--but the amount has increased, and we are able to raise funds that way. You figure that from twenty to thirty people go with us each time so their donations build up the kitty.
- Lage: It's fulfilling its purpose.
- McCaskill: Yes, both as a fund raiser and as a way to get to know each other.
- Lage: You mentioned the memories of Ruth Storer on one of these trips that you wanted to tell about.
- McCaskill: Yes. I remember clearly that she went to southern California with us, and I still have a mental picture of her on Amtrak. A very independent, self-sufficient lady she was. Of course, people were wanting to carry her luggage but no, she could manage that fine. On that trip she was ninety-five years young. Just an incredible woman--so talented, so lovely, so admired by the whole town.
- Lage: It sounds like she contributed tremendously.

Memorable Plant People: Taxonomic Characters##

- McCaskill: One thing more, when I do retire from my position in the herbarium I plan to become a volunteer, far more active in an arboretum--in our local one if I remain in Davis. Wherever I am, I am going to be out there with the plants.
- Lage: I believe that, having talked to you.
- McCaskill: [laughs] I started as a youngster, and I guess it's in my blood.
- Lage: You wanted to talk about some other people you've met, memorable people, through your botanical enterprises.

McCaskill: I think I wanted to finish the interview by saying that I only hope that I will be half as vigorous and healthy when I reach their age. I hope to be much like these older taxonomic characters that I've long admired. At Davis we tease each other some about being taxonomic characters. My good friend Dr. Fred Addicott in the botany department there came up with that term, and I use it in the fondest sense.

Early on I met Annetta Carter, Elizabeth McClintock, Mildred Mathias*--the great ladies of plant taxonomy in the state. I was doing a bit of research the other day checking ages and found that many of the botanists I met at that time are eighty-plus years young and going strong. For example, Ledyard Stebbins in Davis--he is a world renowned geneticist that everyone recognizes as unique. He will be leading field trips connected with our upcoming AIBS [American Institute of Biological Sciences] meetings hosted in Davis this month.

Lage: Is he in his eighties also?

McCaskill: Yes. He is, I believe, in the lower half of his eighties. When I was young and following him on field trips, I was exhausted by the time we'd crashed through several manzanita bushes or other chaparral areas. He was so into his plants and surroundings that he was unaware of anything else. This was particularly apparent at lunch time when he'd pull something out of a sack, and he would scarcely look at what it was. He'd be poring over a map and showing us where we were going as soon as we could down this food that was necessary but nothing we should linger over. So he would pull his sandwich out and while showing you the map, set the sandwich down in the dirt, pick it up, and munch a few bites, and go on. He was a real eye-opener to me. He knew all the plants of California, as far as I could tell. He's a general practitioner type like Tom Howell; they know the flora of the entire state, and it's incredible.

Lage: Tom Howell, did you work with him?

McCaskill: No, I didn't. Tom is the grand old man in the herbarium at the California Academy of Science in Golden Gate Park in San Francisco. Tom, I understand, is still going to the academy a day a week, being driven there by the Knights--Walter and Irja Knight, who are themselves unforgettable taxonomic characters who have been of tremendous help to me.

*See oral history of Annetta Carter and Elizabeth McClintock in California Women in Botany, volume I (1987), Regional Oral History Office, and oral history of Mildred Mathias, conducted by Oral History Program, UCLA (1982).

- McCaskill: Also in that age group would be Lincoln Constance, who is right here and who I know you've interviewed.*
- Lage: Would you have had any chance to work with Lincoln Constance? Does he borrow plants from Davis?
- McCaskill: Yes, we've loaned back and forth members of his favorite families, the Umbelliferae and Hydrophyllaceae. But I have not done field work with him. He just always turns up in my survey of people that I feel so fortunate to know.
- It seems to me, too, that plant people live longer than most people.
- Lage: I think I've heard others say that.
- McCaskill: I bet it could be proven statistically.
- Lage: Do you have any thoughts on why that could be?
- McCaskill: I don't know. Perhaps they're low key and enthused about their work.

Women in Botany

- Lage: What other women in botany, since this is the topic of our series; how have they fared, would you say, having seen the scene for a long time?
- McCaskill: There have been some problems, I know, but I would say by and large they've fared well. They are certainly increasing in number; there's no question about that. I see that in my own area in Davis. When I arrived in the department, there were four women, including only one female graduate student, and I would say that at this time in history it would be more like a fifty/fifty division of men and women graduate students.
- Lage: How about on the faculty?
- McCaskill: On the faculty it would be more, I would guess, a fourth women and three-fourths men at Davis.

*Lincoln Constance, Versatile Berkeley Botanist: Plant Taxonomy and University Governance, Regional Oral History Office, 1986.

Lage: Do the graduate student women seem to have as easy a time being placed in the field and get as good jobs?

McCaskill: Yes, I would say they do.

Lage: Was that always the case, or were you ever aware in the earlier part of your career of problems with the women getting jobs?

McCaskill: I don't know about that. Some people, of course, would immediately say that perhaps now women would be given a slight preference. I am not so sure, though. I think they're screened for their merits and not their sex. But the discrimination is certainly far less than it ever used to be, as it is in all walks of life—I like to think.

Lage: How do you think being a woman might have affected the course of your career? Do you think it affected the educational level that you stopped at, or the kind of job opportunities you may have had?

McCaskill: No. I hadn't really thought about that. That's a loaded one, Ann—food for thought.

I think in herbaria women were more often hired—people thought of women in herbaria in my time when I began in the one at Davis, and now that has switched. There are more and more men in herbaria. But I think when I was first out of college and went to that herbarium it was just a very natural situation.

Lage: That was accepted?

McCaskill: One probably expected to see a woman fill that position.

Lage: Do you think you might have gone on for a Ph.D and into a teaching career had there been more openings for women?

McCaskill: No, I think not. To be perfectly honest with you, I feel comfortable at my level, and I think it would have been a struggle for me, actually, in many ways to go on. As far as teaching, I enjoy low-key teaching such as helping interns in the herbarium. I am teaching them the care and feeding of the herbarium. I like to hold forth on something I'm very familiar with—weeds, how to run a herbarium, things of this nature. But it would have been difficult for me to go on to a higher degree.

Lage: So you're pretty happy with what has come about?

McCaskill: Yes. I think I accepted early on that there's a niche for all of us, and I've found one that suits me to a tee, and I couldn't be more comfortable.

Lage: That's a very nice way to finish up our interview.

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Resumé of Billie June McCaskill

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Place and Date of Birth: Pasadena, California, June 2, 1930

Education: Mills College, Oakland, California
Bachelor's degree in Botany Dept., June 1951
Member Dean's Honor List

Professional Employment:

July 1953 - to date Herbarium, Botany Dept., University of Calif., Davis.
Present title: Principal Museum Scientist.

Sept. 1951 - June 1953: Biology Dept., Mills College, Oakland, CA.
Technician for Prof. Howard McMin, plant taxonomist,
and teaching assistant for nursing candidates from
Merritt College.

Summer 1951: Biology Dept., Calif. Institute of Technology,
Pasadena, CA. Technician for Drs. A. Lang and J.
Liverman, plant physiologists.

Specialization: Identification, taxonomy, and geographic distribution
of weeds. Allergenic plants. Poisonous plants.

Publications: Articles semi-technical in nature on weeds and weed
problems in California. Co-author Growers Weed
Identification Handbook.

Memberships: California Botanical Society
California Native Plant Society
Friends Davis Arboretum
Friends of Jepson Herbarium
Los Angeles State and County Arboretum
Native Hawaiian Plant Society
Santa Barbara Botanic Garden

Offices: Business Manager and Treasurer, California Botanical
Society, Oct. 1967 - Dec. 1971.
Membership Chairman and 2nd V.P., Friends of
University Arboretum, U.C.D., July 1974 to date.

Awards: Outstanding Performance Award, Botany Dept., U.C.D.,
1974, 1987.
Selected (1 of 18 participants nationwide) to attend
Developing, Managing and Maintaining Collections
Workshop at the Smithsonian Institution, Washington,
D.C., 1977.
Award of Excellence, California Weed Society, 1985.

INTERVIEW OF VERN AND JACK McCASKILL
by ALMANAC editor Lewis Lawyer

Almanac: Society for Pacific Coast Native Iris

FALL 1987
Volume XVI Number 1



THE McCASKILLS

Lewis Lawyer

Vern McCaskill is a well-known nurseyman in Pasadena specializing in camellias and azaleas. His nursery has been a primary source of Pacific Coast Irises since the early 50s and has probably distributed more native iris plants than any other nursery in the world. His son, Jack, is in charge of plant records at the Los Angeles County Arboretum at Arcadia. Jack is a charter member of SPCNI and was our first Vice President.

Vern McCaskill is a very special person. You know that the minute you meet him. He is hard-working, but his intense love of plants and flowers shows through his face and in his soft-spoken voice.

The following article is taken from tapes recorded on two successive days in early December, 1986, the first with Vern in his lath house office at the McCaskill Nursery in Pasadena, and the second with Jack in his office at the Arboretum in Arcadia.

When asked how he became interested in native iris, Vern was a little hesitant; in this instance it certainly was not a case of love at first sight. "Well, my wife had one or two of them

growing around the yard. That was a long time ago, but I remember one of them was AGNES JAMES. I think they came from a friend of hers; her friends were always bringing her plants. To me, the natives were pretty, but not very exciting and I really didn't think too much about them until my son, Jack, got involved."

Jack agreed: "You know, my dad has introduced about 200 camellias and he was so involved with his camelia crosses at that time...But it really is strange how we did get into the natives. Back in the early 50s, mom and my older sister, (I have another sister up at the University of California at Davis), but the one who lives down here and my mom, started taking a course in flower arranging. I was working here on weekends plus three days during the week. I happened to have some time to spare on the day they went to their class. I started going with them and continued for about a year. Mom had a few native irises growing in our garden to pick for bouquets and we all liked to use them in our arrangements. Then my sister planted a few of the common ones in her back yard and I got to like to see them growing.

"I gathered plants and seed all along the coast from Mendocino down to below

THE McCASKILLS (continued)

Monterey. Dad and I grew the seed in gallon cans so he could sell the ones we didn't want to keep. Actually, none of these plants were very good, and it wasn't until we got seed from Lee Lenz that we made much progress.

"Peg Dabagh knew that we were interested in getting going on the natives, so she talked to Dr. Lenz at the Santa Ana Botanic Garden. This was before he had incorporated *Iris munzii* into his crosses, but he had things that were far ahead of anyone else's at the time. Apparently, he had introduced a few selections in the early to mid-1950s and, according to Peg, had given some of his things to commercial growers to distribute. But they just sold all the stock he gave them and made no attempt to increase anything on their own. I guess he was kind of fed up, and Peg told me that he wasn't going to release any more. She apparently convinced him, however, that dad and I were used to increasing our own stock, so he very graciously let me go out and pick seed from his stock plants. We planted this seed and eventually had thousands of seedlings, almost any one of which was a jump ahead of everyone else down here.

Vern McCaskill explained: "You know, my son went up and down the coast trying to get seed of all the kinds available and we grew thousands of seedlings. But none of our plants from these crosses were very spectacular. Then Jack went out to the Santa Ana Botanic Gardens and visited Dr. Lenz who was kind enough to give him quite a lot of seed. It was from these seeds that we got all of our best material. We kept crossing back and forth and eventually found any number of good selections. Lenz had used *douglasiana* and *innominata*, and a little bit of *bracteata*, which gave its striping to some of the flowers.

"We grew thousands of seedlings each year and sold most of them to landscape architects by the truckload. The best flowers we would keep for hand pollinations. The best plants remaining went to the iris fanciers and all the rest went to the landscapers. For the last year or two I've not done so much with the natives. Part of this is because of my wife's death last summer. She

had been sick for about six years and I just sort of..."

Vern stopped and changed the subject: "I think that the best PCN that was ever developed was CANYON SNOW. We increased CANYON SNOW for Dara Emery and introduced it in 1975. I crossed it with many of our things to see if I couldn't get the same attributes but with different-colored flowers, but none of these crosses were successful. CANYON SNOW is certainly a wonderful grower and bloomer but, for me, it was never a good parent.



Vern McCaskill

The McCaskill's first-named selections, CASILDA, CHIMES, and FAIRY CHIMES weren't introduced until 1972 and then apparently only after some persuasion by their friend, Doris Foster of Vista. At one time during the interview Adele and I were asked if we had ever grown CHIMES or FAIRY CHIMES. When told that we still grew both of them and that both were doing beautifully, Jack said, "Oh, I'm glad to hear that! CHIMES always grew well for us but we had to give up on FAIRY CHIMES, - well, maybe not 'give up'.

What happened was that we had a big storm followed by some hot weather. The lath house collapsed and we didn't get FAIRY CHIMES shaded in time. Does your CHIMES get covered with white blooms like it did for us down here?" Adele and I both recalled that when an established clump of either CHIMES or FAIRY CHIMES was in bloom in our garden, the expression "covered with white blooms" was a perfect description. Jack continued, "When we first had it where it was planted in the ground we had a sheet of white. - It was spectacular!"

Because of our interest in *Iris munzii* we asked Vern about his experience with this species. "Munzii selections and crosses have never done very well for us here. Jack gathered seed up in the Sequoia area and even though we had about 1000 seedlings to start with, we eventually lost the lot!"

Jack McCaskill elaborated on this experience: "About 1963, one of the other fellows working here at the Arboretum and I took a few days off and drove up to the Sierras where *munzii* grows wild. We had found out from Dr. Lenz when would be the best time to make the trip, and so we came back with a lot of seed. This seed germinated real well but it was all gone after about a year or two. Maybe it was because we were trying to grow it in cans.

"I guess dad told you that we have experienced a lot of trouble with all the *munzii*-related plants. We were supposed to introduce ALMA ABELL for Dr. Lenz back in the early 1970s. We put a bunch of them in the ground figuring that we would increase it for a couple of years until we got enough divisions. We wanted to have enough plants to sell and still have enough left over for further increases. But it just kept decreasing instead of increasing. The plants bloomed beautifully but just wouldn't increase. By the end of three years we had lost them all! Lenz had to increase it all over again and I understand that it was distributed through Bob Hubley about 1982.

"Dr. Lenz grows his *munzii* things in full sun, and they are beautiful! I don't know how he does it. They don't grow in the sun where they are wild. It's hotter in Claremont than it is here and we have never been able to grow them in full sun or otherwise."

Vern McCaskill seemed quite exasperated about his inability to cope with the demands of *munzii*. When he told us about their experience with ALMA ABELL he said, "You know, Dr. Lenz named this beautiful *munzii* flower for Thornton Abell's wife, Alma. She was such a wonderful woman and the flower was so beautiful, and I wanted to grow it as much as I have ever wanted to grow any plant. But it just wouldn't grow for me. SIERRA SAPPHIRE, too, was such a beautiful thing, and it bloomed very well for us. Our customers would see it and would have to have it, but then they would come back with the sad news about its death. The new Claremont introductions behave the same way for us and we have just had to give up on them.

"Of course this is true about a lot of plants. They seem to do best where they are selected and may not do well anywhere else. You have a very good iris grower up your way, Joe Ghio. I used to get all of Ghio's new varieties and bring them down here. Some of them performed quite well and others were nothing but trouble. Climate, I guess. Ghio has a fine climate, right along the coast. Its pretty cool here today, but you should be here during the summer! We might as well admit it, - we're in a desert here and pouring water on it doesn't change it very much.

"I had trouble with Roy Davidson's plants, too, but for quite a different reason, even though it was tied in with the weather. He wasn't able to ship plants in the late fall when I wanted the plants because up in Seattle he was already frozen in. So he would ship to me in the spring and they would invariably arrive here at the beginning of a hot spell. I would keep them in the shade and pour water on them but it was a losing battle."

Every iris plant from the McCaskill Nursery is sold in cans using their standard camelia mix. "We use a mixture of about one third each of peat, sand, and a good loamy soil which we get by the truckload. I don't use any compost although I imagine compost would be good for them, too. I just figure that the peat will take the place of the compost, and you are always sure of peat moss whereas compost can be made from almost anything."

Vern McCaskill was brought up in

THE McCASKILLS (continued)

Missouri where his father owned a general store, selling "everything from needles to plows". His mother, however, was more interested in gardening than she was in housework and it was she who nurtured his interest in plants. To please his father, however, he enrolled at Annapolis and studied there for one year. He resigned after the first year because "I finally figured out that there was no way that I would ever be able to grow plants on a battleship!"

His first home in the west was in Altadena, California. He and his wife worked for the Coolidge Rare Plant Nursery in nearby Pasadena from about 1925 to 1935, during which time his son, Jack was born. Vern remembers the Coolidges with great fondness, saying that he and his wife were treated more like a son and daughter than they were like employees.

Vern recalls a day when Liberty Hyde Bailey came to the nursery to visit the Coolidges. Mr. Coolidge introduced Vern as "a young man he was going to make into a plantsman." Bailey's rejoinder was, "Oh, no you aren't! He is a born plantsman. You can't create a plantsman - either they are or they aren't!" Vern thought about this a great deal and decided for certain that this was the field he should pursue.

Vern built his present home on Michillinda Avenue just south of Colorado Boulevard in 1932. Jack worked in the adjoining nursery with his father from

the time his father went into business for himself until Jack started working at the Arboretum. "Even after I started working here, I worked a lot with dad. You know, I've been living at that house ever since I was a kid, and living there has been so pleasant that I hate to think it might end sometime. Our family was very close. I remember dad always felt that the name given to a plant could make it or break it. So when he was going to introduce a new camelia he would bring a flower into the house after dinner and he and mom and I would sit in the den and try to think of a name for it. Mom was always good at making up names. Of the hundred or so camelias he introduced, mom named almost all. She would sit there in the den, look at the flower dad was holding, and in a little while she would come up with a name and it would always seem to fit the flower.

"Dad promised mom that he would retire when he got to be 65. He will be 85 next month and now he says he doesn't remember ever making such a promise. He's slowing down a bit on the natives and not planting the thousands of cans he used to plant each year; but I guess he might not even be around any more if he didn't have something he loves to do so much."

Which reminds your editor that when Adele and I went into his yard to tape this interview, we found Vern up on a ladder pruning a large shrub alongside his house. He smiled a welcome to us, threw down the limb he had just sawed off, and said, Well, we'd better go in to the office."

Cultivars named for McCaskills:

Callistemon viminalis cv. McCaskillii

Camellia maliflora cv. Betty McCaskill

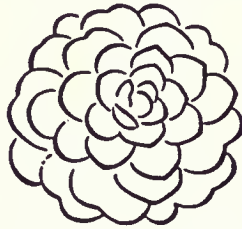
Camellia japonica cv. Jack McCaskill

Camellia japonica cv. June McCaskill

Hemerocallis hybrid cv. Billie McCaskill

Camellias

IN THE HUNTINGTON GARDENS

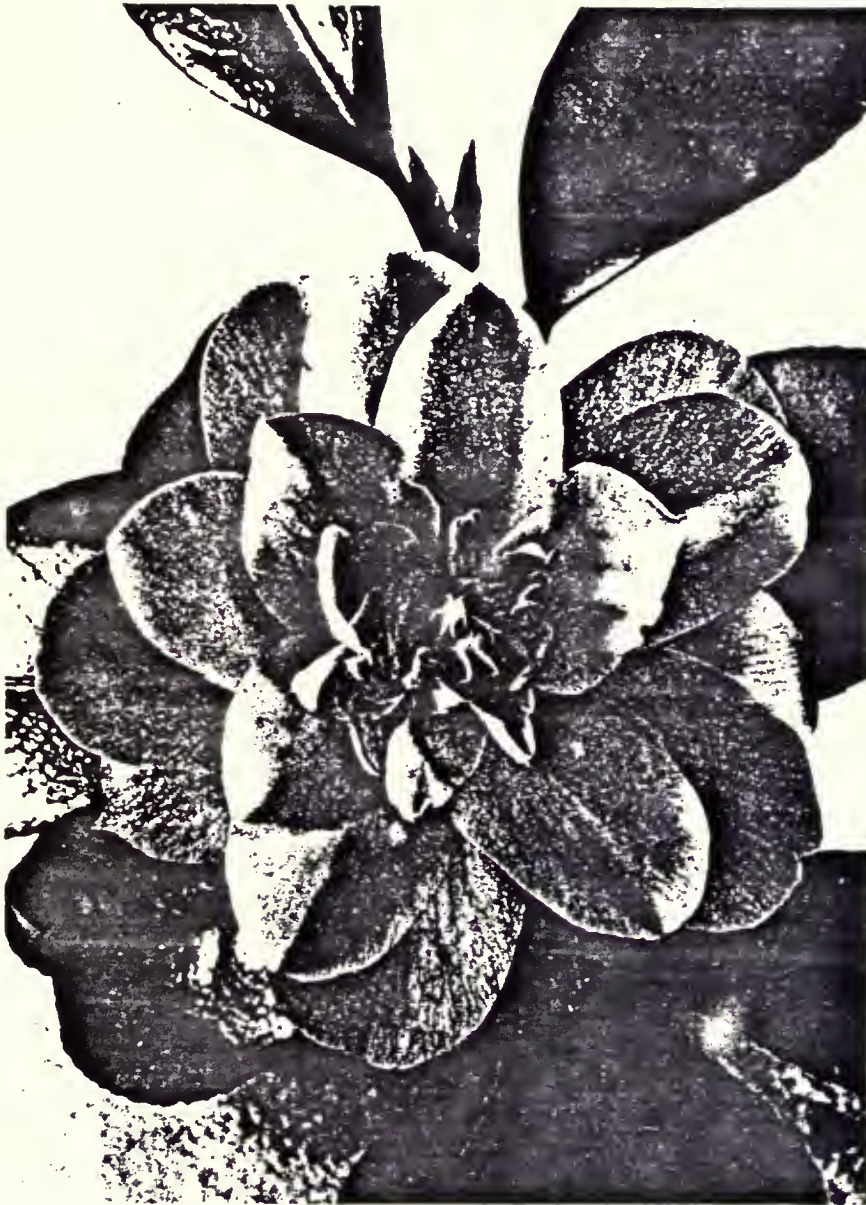


*Observations on Their Culture
and Behavior and Descriptions of Cultivars*

VOLUME III

BY WILLIAM HERTRICH
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CAMELLIA JAPONICA • JUNE MCCASKILL

Flower: semidouble; Phlox Pink 625/2, veins slightly darker; to 9 cm. broad by 5 cm. high. **Buds:** elliptic. **Calyx:** to 4 cm. across, flat, silky; brown outer segments, crisp brown margins, inner segments silvery green, broad translucent margins; three petaloid sepals to 3.5 cm. long by 2.25 cm. wide, petal color, reflexed. **Petals:** about 15, narrow obovate, some heavily channeled, fair substance, to 4.5 cm. long by 2.75 cm. wide, short hafts, apices rounded, margins entire, recurved. **Center of flower:** few incomplete petals and petaloids carried erect, mixed with a few crimped stamens, white filaments to 3 cm. long, small yellow anthers. **Leaves:** elliptic, only slightly cupped, very dark glossy green, lighter undersurface, heavy texture, 7-10 cm. long by up to 4.5 cm. wide; **serration**, broad, shallow; **apices**, mostly short pointed; **petioles**, fairly stout, to 1.3 cm. long; **venation**, noticeable surface, pronounced undersurface. **Habit:** upright, spreading, medium growing, midseason.

Source: Seedling originated by McCaskill Gardens, Pasadena, California.

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